ANNUAL REPORT
1984 — 1985

INTERNATIONAL YOUTH YEAR 1985

ANNÉE INTERNATIONALE DE LA JEUNESSE 1985

Ontario

Ministry of Transportation and Communications

86-03673/

Annual Report 1984-1985

for the
fiscal year
ending
March 31, 1985

Ministry of
Transportation and
Communications

To: The Honourable John B. Aird,
O.C., Q.C., L.L.D.
Lieutenant-Governor of the Province of Ontario

MAY IT PLEASE YOUR HONOUR:
The undersigned takes pleasure in laying before you the Annual Report of the Ministry of Transportation and Communications for the fiscal year ending March 31, 1985.

Respectfully submitted,

Ed Fulton

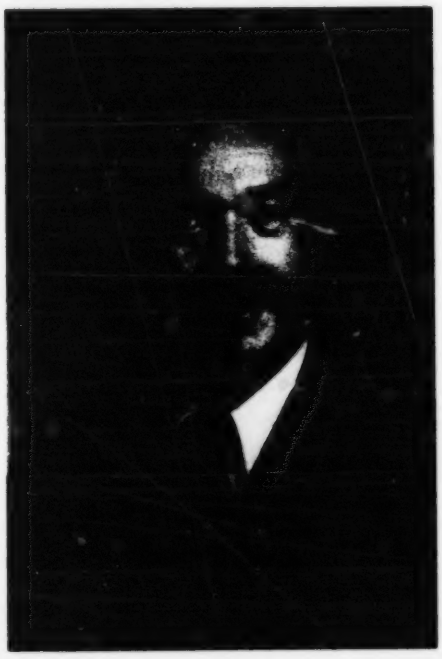
Ed Fulton
Minister

To: The Honourable Ed Fulton
Minister of
Transportation and Communications

Sir:

I have the honour to present the report of the activities of the Ministry of Transportation and Communications for the fiscal year ending March 31, 1985.

Respectfully submitted,



John Barr
Acting Deputy Minister

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Deputy Minister's Summary

The year 1984-85 offered MTC staff across the province a wide variety of challenges. In responding to the needs of the Ontario public, ministry employees continued to provide an outstanding degree of service.

Highways

Total expenditure for highway and freeway construction amounted to $202,281,933 with an additional $196,255,050 spent on construction of municipal roads.

MTC continued to concentrate on maintenance of the infrastructure with a total of $215,476,459 allocated to maintenance of the King's Highway network. Construction or repair work was completed on 1,163 kilometres of highway and new work was done on 118 bridges.

Through the government's industrial expansion program, MTC received $25 million in BILD funds for major highway projects in southern Ontario's Golden Horseshoe area.

Construction of the twinning of the Burlington Bay James N. Allan Skyway continued well ahead of schedule. Work on the $63 million project, started in 1983, is slated for completion in the summer of 1985, eight months ahead of schedule.

Major freeway projects during the year included: the construction of Highway 403 from Rest Acres Rd. (west of Brantford) to Brant County Rd. 25; Highway 406 in St. Catharines; improvements on the QEW between Burlington and Hamilton; staged construction on Highway 401 by Pearson International Airport; and north of the Airport, the extension of Highway 427 towards Highway 7.

Work continued to expand Highway 400 and Highway 69 to a four-lane controlled access freeway; Highway 404 from Highway 401 towards Newmarket; along Highway 11 between Crown Hill and Gravenhurst. And planning was underway to provide a four-lane limited access highway along Highway 35/115. Rehabilitation work continued along the Ottawa Queensway.

In northern Ontario, a contract was awarded for grading six kilometres on Highway 144New, a bypass northwest of Sudbury. Work continued on the Highway 17New bypass of the Kenora, Keewatin and Jaffray-Mellick areas.

Transportation Programs

During the fiscal year, operational subsidies to municipalities totalled $119,629,157. Large capital expenditures on the Ottawa busway and the Scarborough rapid transit line resulted in capital assistance amounting to $192,799,352.

Planning for the new GO-ALRT inter-regional transit system linking Hamilton and Oshawa continued, consisting of two sections from Hamilton to Oakville and Pickering to Oshawa.

During 1984-85, a total of 70 municipal transit systems received financial assistance. Municipalities introducing new major rapid transit facilities or experiencing an above normal population growth received special subsidies.

Construction on the Scarborough Rapid Transit continued throughout the year. The 7.2 kilometre intermediate capacity transit system (ICTS) was opened March 22, 1985, introducing technology design by the Ontario Government's Urban Transportation Development Corporation (UTDC). In the Ottawa-Carleton Region, work continued on the exclusive busway.

Special funding was secured from BILD to assist municipalities acquiring vehicles specifically designed to transport physically disabled persons. Work on the transit information, communication and control systems (TICCS) project continued to develop and implement computer based transit support packages designed to assist in managing and controlling important transit functions.

Air Services

Staff assisted municipalities across the province in planning, designing and operating their airports. A total of 46 municipalities received subsidies towards construction projects and maintenance expenditures supplemented through the BILD program.

Monitoring the level of air passenger services in Ontario was a major staff function as well as assessing air carriers' applications to the Canadian Transport Commission (CTC).

Staff continued to be involved in implementing the Ministry of Health's system of medical emergency heliports at Ontario hospitals.

A program of increased use of passenger surveys was also initiated to acquire a better understanding of air travellers' needs and expectations.

The Ontario Airport Facilities Map continued to be distributed detailing the location and facilities of all significant Ontario airports.

Marine Services

Major activities undertaken during 1984-85 included the celebration and promotion of the 25th anniversary of the St. Lawrence Seaway.

Assistance and funding was provided for the production of "The Great Lakes, St. Lawrence Seaway System" a major bilingual publication and a promotional film entitled "The System."

The final report of the "Ontario Ports Study" was completed and distributed to appropriate government and marine officials. An Ontario shipyard demand study was also completed. In co-operation with the federal government and other agencies, investigations continued into port pricing practices.

Rail Services

During the fiscal year, phases I and II were completed of a joint

federal/provincial study of the transportation needs of northern Ontario communities now served by VIA Rail.

Staff were closely involved in passenger-related issues. A submission was prepared for the Minister of Transport Canada's rail passenger action force outlining the province's position on VIA services and legislation for the rail passenger agency.

Communications

Staff made broadcasting and cable submissions before the CRTC on a range of issues including multicultural broadcasting, cable advertising, new multi-point distribution systems and CBC's licence renewal conditions.

Support was provided for Ontario's communications industries and new communications technology application through assistance to communications businesses, the introduction of Telidon Aviation Briefing Service (TABS) and the production of a telidon videotape presentation.

Major research studies were produced on viewer choice of television services, cable advertising, multi-point distribution systems, Canadian content, an economic profile of the CBC in Ontario and a survey of Windsor radio listeners.

Research

A variety of projects were undertaken in research and development with continuing emphasis on developing technologies to maintain the quality of pavements and bridges.

As part of MTC's contribution to the development of uniform standards for vehicle weights and dimensions, work was begun to collect data on the effects of heavy vehicles on pavements.

Cathodic protection was studied as a means of conserving and increasing the life-span of bridge structures. Several areas of activity increased awareness of the effects of de-icing salt on the highway infrastructure and the environment.

Highway operating systems staff worked to improve the understanding and application of the principles of engineering economics to ministry activity.

Municipal traffic control system demonstration projects were completed. Under development was a functioning model of a centralized mainframe-based information system called TIES (technology information exchange system).

Trucks and Buses

The Bus Transportation Office focussed on future public vehicle initiatives: the separation of charters and line-runs, regulation of public vehicle services, economic de-regulation of charters and the strengthening of current regulations.

Truck transportation staff worked towards the January 1, 1986 implementation date for trucking regulatory reforms.

A continuing priority was the development of recommendations in the 1983 final report of the Ontario Commission on Truck Safety.

Drivers and Vehicles

Staff co-ordinated Ontario's strategy in the creation of a nationally uniform code for the transportation of dangerous goods and the fuel system inspection program for propane fueled vehicles.

A roadside seat belt and child restraint survey in May and June of 1984 indicated an increase in driver seat belt usage since 1981 — 70 per cent compared to 60 per cent — as well as a marked increase in child safety seat usage.

To further driver education, a new textbook "Roadworthy — Becoming a Responsible Driver" was published for use in Ontario's secondary school driver education program and commercial driving schools. Means of improving driving in Ontario were addressed at a workshop held to examine the concept of graduated licensing for young drivers.

Educational materials have also been produced to encourage voluntary usage of headlights on a 24-hour basis.

With 20 per cent more motorcycle fatalities in 1984 than in 1983, motorcycle accident casualties were a serious concern. A ministry study indicated alcohol, non-usage of helmets and speeding were contributing factors.

Bicycle safety was examined through a multi-year in-depth analysis of Ontario's bicycle accident statistics and trends. Future strategies and countermeasures were in the development stage to improve bicycle safety.

The following summarizes expenditures reported by the financial comptroller for the fiscal year 1984-85 with comparative figures for the preceding year:

	Fiscal Year Ending	
	March 31, 1984	March 31, 1985
Ministry Administration	$ 38,847,162	$ 44,031,359
Policy Planning & Research	10,350,650	10,050,509
Safety & Regulation	78,372,494	75,126,179
Provincial Highways	516,228,314	515,633,572
Provincial Transit	103,748,919	88,000,000
Provincial Transportation	7,463,225	7,411,293
Municipal Roads	504,623,981	521,189,321
Municipal Transit	279,318,355	322,710,607
Communications	2,437,596	2,941,402
Total Gross Expenditure	$1,541,390,696	$1,587,094,242

Deputy Minister's Office

Affirmative Action Program

The goal of this Program was to achieve equity of employment for women by ensuring a minimum of 30 per cent female representation in all classifications.

Last year, emphasis was placed on five areas of special concern: middle and senior management, technology-related occupations, engineering positions, highway operations and maintenance.

In these and other initiatives, staff provided technical assistance to managers and co-ordinated MTC's affirmative action plan and activities.

Accomplishments included:

- 79 developmental assignments completed under the accelerated career development program;
- 29 developmental assignments initiated through the affirmative action incentive fund;
- training of eight women through the computer application and other formal training programs to qualify them for systems-related positions;
- training of six women through formal programs to qualify for project and program analyst, financial, purchasing and accommodation officer positions;
- 49 women hired in contract positions in highway operations and maintenance;
- 85 career and work-related counselling sessions conducted with female staff;
- seven career-related information sessions conducted for women in the regions;
- a week of noon-hour information sessions on career planning;
- annual career development interviews with female staff and updating of the career development inventory;
- a program conference held for approximately 70 unit representatives and council members;
- regional and head office meetings to discuss affirmative action issues with managers;
- development of new technical assistance guide to assist managers in preparing their affirmative action plans; and,
- review, analysis and development of new strategies regarding female participation in staff training and development — with emphasis on management, technical and technological training.

Internal Audit Branch

During the year, staff made extensive progress in what is now known as the "new role of audit," which places more emphasis on financial and management controls and less on highlighting isolated errors or omissions.

An audit committee was formed with the deputy minister as chairman and assistant deputy ministers and executive directors as members. It met four times during the year. A short-term audit plan — as well as a long-term, or four-year plan — was approved, ensuring personnel could fulfill its mandate by auditing the ministry and other assigned agencies over a four-year period.

Follow-up procedures to audit recommendations were developed and approved by the committee to ensure the findings from the audit reports will be acted on to a satisfactory conclusion. Staff responsible for this work report through the Strategic Policy Secretariat to the deputy minister.

The branch was staffed to blend as many skills as possible into the organization; to broaden the personnel skills by hiring from non-traditional audit sources of the ministry (as the opportunity arises). Three female auditors are now part of the staff. The branch added six members to the support group, people who previously provided support to the Office of the Future prior to being disbanded.

Most staff members have been given extensive training through outside and in-house courses, lectures, films, etc., to assist them in their new role.

An extensive public relations campaign took place where senior members of the branch communicated whenever possible with MTC staff, especially those at the senior levels in the districts, regions and head office. As a result, the new audit concept is now better understood. Entry audit meetings are held at each client's request and the scope and methodology of the audit discussed in detail. Positive findings — as well as negative — are listed in the final audit report, which is discussed in detail with the audit clients before completion. The audit report format appears to have been well received.

The branch has a staff of 78 members, including support staff. Auditors work in four primary areas: Engineering and Systems Audit Office had staff in all five ministry regions and head office. Regional staff generally audited activities in the districts and regions; head office personnel generally look after technical areas in head office, together with those areas providing technical support, direction and policy decisions to the districts and regions. This staff was also responsible for conducting independent overviews of contractors' records relating to claims filed against the ministry.

Operational audit staff had two major areas of responsibility delegated to the Financial and Management Audit Office responsible for conducting audits in those MTC activities essentially of a non-technical nature — with emphasis on the areas of heavy financial involvement, and the EDP Audit Office responsible for auditing the ministry's many computer systems and programs. The ministry had to be concerned with the accuracy of the huge variety of programs and their security. To acquire, train and hold capable staff for this function has been a major problem. Cognizant of this fact, the branch has taken the necessary steps to try and ensure adequate provision of the necessary resources.

During the year, some 22 formal audits were completed, covering all MTC programs with the exception of the Communications Division. Audits were also started in the Ministry of Northern Affairs, GO Transit and in connection with UTDC and Expo 86.

Strategic Policy Secretariat

The secretariat was composed of three offices which support the minister, deputy minister and the Strategic Policy Committee (SPC). In addition to the secretariat and Outlooks Office, the Human and Social Factors Office was added to affirm the growing importance of human and social factors.

Policy Secretariat

Staff was responsible for promoting, monitoring and facilitating strategic management at MTC and for coordinating the operation of the ministry's strategic management processes. As part of this, they managed the specific activities of the annual strategic planning process, reviewed and recommended changes to the planning process, coordinated MTC's senior policy committee (SPC), coordinated Cabinet submissions, and provided liaison with central agencies. Personnel also provided special support for the minister and deputy minister coordinated responses to government initiatives (e.g. Speech from the Throne), questions in the Legislature, and prepared certain speeches (e.g. deputy's 100 minutes). They also assumed a number of other duties, including coordination of audit committee, liaison with the ombudsman's office, management of consultant assignment committee, and provided an information link with Ontario Houses and Missions.

A new and revised "Strategic Directions 1985" publication was prepared to provide an overview of the ministry's strategic style of management and the directions formulated to deal with emerging issues affecting the ministry. Staff reviewed the many linkages between ministry actions and last year's strategic directions.

Outlooks Office

Staff's main function was to identify and analyze emerging trends in the external environment to assess potential implications related to the transportation and communications fields. The data base which covered a variety of secondary information sources was significantly enriched with the new subscription to an opinion leader research program and a newspaper content analysis.

Information was disseminated mostly through presentations to SPC, program committees and ministry offices. Experts were also invited to outlooks sessions and senior management conferences to speak on current topics including regulatory reform, Canada's future, social and economic trends and public opinion trends. A one-day workshop was held with the active participation of executives and managers to identify and discuss the implications of societal change on the MTC's policies and programs.

An outlooks presentation covering the major trends of the external environment was integrated into the annual strategy planning session and became part of the "1985 Strategic Directions".

Two specific outlooks studies were underway; one dealing with the marine mode in Ontario and the other on the monitoring of regulatory reform.

SPS staff also included appropriate career development opportunities in its staffing strategy.

Human and Social Factors Office

Personnel were responsible for carrying out research and providing professional advice dealing with human and social considerations in the development and evaluation of ministry programs, policies and corporate directions. Staff was transferred to SPS in February from the transportation technology and industry branch to strengthen and emphasize human/social factors in transportation and communications.

Staff were involved in a variety of major projects and consulting services, including a new driver education textbook and a course for use in Ontario high schools. A survey was carried out of seat belt and child restraint use by motorists in the province. An evaluation was completed of different reflectorized materials for use on overhead freeway guide signs and evaluations continued of the probationary licensing program and the Telidon Aviation Briefing System. Finally, an analysis was carried out of the factors associated with motorcycle accidents involving injury.

Public and Safety Information Branch

Branch staff met MTC's overall communications' needs, including liaison with radio, TV and print media.

During the fiscal year, information materials produced and distributed totalled over six million. Included among safety-related posters, brochures and booklets were the Driver's Handbook and the Motorcycle Driver's Manual, the latter two in co-operation with D&V policy staff.

Safety curriculum materials were produced for distribution to Ontario public and separate schools and driver courses in secondary schools and some community colleges.

Personnel also produced the Ontario Traffic Safety Bulletin, MTC News and an affirmative action newsletter, Working Together.

In addition, information officers were involved in the production of radio and TV commercials, A/V scripts and display advertising for newspapers and magazines.

Over the course of the year, audio-visual staff produced five films, as well as MTC's annual "Ontario on the Move." Among them were "Two Hundred Years of Highways" which outlined the history of highways in Ontario; films on bicycle safety, the Burlington Bay James N. Allan Skyway, Trucksave and another for the marine office.

Section personnel maintained an A/V library of traffic safety films and video tapes for distribution to schools, police and the public.

Staff produced 8,000 black-and-white photographs, 23,000 colour slides and duplicates and 125 portraits.

Also created was a thermographic display at Ontario Place as well as exhibits for the Canadian Lakehead Exhibition, Western Fair in London and Ottawa's Central Canadian Exhibition.

During the spring, summer and fall of 1984, MTC's Bicentennial caravan visited 16 Ontario communities and spent three weeks at the Canadian Automotive Museum in Oshawa.

Information officers researched and wrote 72 speeches for the minister and deputy minister, plus editing others for senior staff. Production of news releases, general, contract and tender amounted to 342.

Staff also provided advice and guidance in communications planning to other MTC offices/divisions.

Other responsibilities included co-ordinating official functions for the minister, i.e., news conferences, municipal airports and highway opening ceremonies.

During the year, information staff answered more than 145,000 telephone requests for up-to-date information, 120,000 requests for general information and replied by mail to a further 1,400 enquiries.

Management Improvement Branch

Branch staff supports the deputy minister and senior management in evaluating opportunities for continued development of MTC's management and organization. In fulfilling this role, they undertake varied corporate management and organizational improvement assignments, while providing consultative advice and assistance to program and line managers in reviewing specific initiatives within their particular areas.

During the past year, personnel were responsible for a broad range of activities including the following completed projects and achievements:

- the evaluation of the potential for automation and redistribution of activities related to the regional and district financial administrative process. Work was initiated on further defining and analyzing the benefits and implications associated with long term direction;
- an examination of the organization of the Safety and Regulation Division to ensure its compatibility with the program's longer term development and changing environment. Modified roles, responsibilities and relationships were established for the head office structure and region and district delivery units;
- a comprehensive review of MTC's publishing arrangements resulting in the clarification and refinement of the roles and relationships among the client and support units. Recommended policy and procedure initiatives were also developed to increase the effectiveness and economies associated with ministry publications;
- an assessment and confirmation for the decentralized approach to the funding of data processing services. Subsequently a detailed analysis of the rate formula was initiated to ensure equitable cost allocation and promote cost accountability;
- task force participation and co-ordination in the development and approval of improved financial control mechanisms for the vehicle licensing and registration system;
- a review of the functions and organization associated with corporate policy development, resulting in revised reporting arrangements and increased socio-economic and human and social factors considerations in management and program initiatives; plus,
- the development and approval of a revised organization structure for the Provincial/Municipal Transportation Division to consolidate responsibilities and maximize effectiveness.

Additional activities initiated during the year included:

- a review of the products and services provided by the Supply and Services Branch to confirm current strategies appropriately respond to the ministry's objectives and evolving needs;
- further definition, development and application of an operational planning and budgeting framework to complement strategic and results-oriented management processes; and,
- the determination of the future direction for the "performance budgeting system" to ensure it effectively responds to managers' resource planning and monitoring needs.

Office of Legal Services

Staff provides legal services to the minister and MTC. Legal officers are members of the Ministry of the Attorney General, seconded to MTC and located at head office and each of the regions — except Thunder Bay.

They provide legal advice on all aspects of programs and prepare legal documentation through which such programs are carried out, e.g., ministry contracts, claims, property acquisitions and disposals.

They also advise on legislation affecting the ministry and prepare and recommend amendments to the statutes administered by MTC.

A major initiative in this area involved the preparation of the Public Trucking Act, 1985, which has been tabled in the Legislature. Passage of this Act will require complementary amendments to various acts and regulations which will be prepared by staff legal officers.

Other safety concerns were addressed through amendments to the Highway Traffic Act (HTA). Specifically, inspection standards and procedures were amended for the safety inspection of fuel systems for propane-powered vehicles.

Legal office counsel provide ministry representation before various administrative boards and tribunals such as the Canadian Radio-television and Telecommunications Commission (CRTC) and the Canadian Transport Commission (CTC).

Counsel conducts prosecutions for offences under the ministry's statutes, e.g., the HTA and Public Commercial Vehicles Act, as well as the Motor Vehicle Transport Act (Canada).

Claims Office

Staff initiates claims on behalf of MTC against third parties for damage to Crown property arising from accidents on the King's Highway; investigates and resolves, frequently by negotiation, claims made against MTC (and, in some cases, the provincial government) arising from a variety of circumstances, such as:

- accidents involving provincial government vehicles (excluding Ontario Provincial Police);
- accidents resulting in injuries to government employees, while on duty by the action of a third party;
- accidents arising from alleged lack of maintenance of the King's Highways;
- accidents or emergencies on the King's Highways necessitating the presence of municipal fire departments;
- accidents or damage to third parties as a result of highway construction work;
- damage or flooding to third party property arising from alleged improper drainage;
- depletion of rural well water supplies or pollution of wells allegedly from highway construction work, winter road maintenance or sand/salt storage facilities;
- damage to private residences allegedly attributed to vibration from construction work or dynamite blasting;
- crop damage claims said to have been caused by weed spraying operation;
- spraying of automobiles or private property during mulching operations or highway zone-stripe painting; and,
- claims arising from incorrect computer information emanating from the Licensing and Control Branch.

Staff instituted claims against the public for damage to Crown property such as bridges, light standards, guide rails, etc., and, where necessary, arranged for legal action to be taken against responsible parties through the Ministry of the Attorney General.

Communications

Division aims are guided by three key objectives: to ensure provincial residents access to a reasonable choice of communications services at fair prices; promote efficiency and effectiveness in the communications network; and, contribute to Ontario's economic growth in the communications sector.

In fulfilling these objectives, staff became involved in a broad range of activities, including policy development, support to industry, and technology application projects.

In its policy activities, personnel co-ordinated the development of the province's positions on communications matters to influence decisions made at the federal level. This frequently took the form of preparing comments and interventions for submission to the Department of Communications (DOC) and federal regulatory agency, the Canadian Radio-television and Telecommunications Commission (CRTC). In 1984/85, staff prepared a total of 32 written submissions and participated in nine CRTC hearings.

Broadcasting and Cable

In this area, staff was influential in a number of policy decisions, including:

- Canadian content regulation — For the first time, the CRTC Executive Committee met with staff to discuss Ontario's proposals for a new approach to Canadian content regulation on television. This meeting followed the release and distribution of a study commissioned by the division on the implementation of its proposed performance-based approach. Changes to Canadian content requirements are likely to be announced this year;
- FM radio regulations — At a CRTC hearing held to review broadcasting issues in Windsor, MTC proposals resulted in more flexible regulations for area radio stations forced to compete with popular Detroit stations. Staff also proposed other FM radio stations should have fewer burdensome regulations.
- Canadian superstations — Staff made proposals to the CRTC to allow Canadian TV superstations or "distant signals" which would increase viewers' choice of programming in remote areas. The CRTC's policy to license distant signals cited MTC's research and position papers extensively; and,
- Federal Bills C-10 and 20 — These bills, which provided for amendments to the Bell Canada, CRTC, Broadcasting and Radio Act, included proposed changes made by MTC in response to drafts introduced by the previous federal government.

Broadcasting and cable submissions were also made on the issues of: cable advertising, multicultural broadcasting, new television specialty services, the restructuring of the Pay-TV industry, new multi-point distribution systems (MDS), and CBC's licence renewal conditions.

Major research studies were published to support MTC's positions, including: viewer choice of television services, cable advertising, MDS, Canadian content, an economic profile of the CBC in Ontario, and a survey of Windsor radio listeners.

Telecommunications

Here, divisional representations included:

- CNCP long-distance competition hearing — Staff supported the introduction of competition in long distance telephone service by CNCP, but did not support higher local rates or American-style deregulation of the industry. MTC's position was backed by three major studies on the impact of competition in the U.S., the potential impact on the independent telephone companies in Ontario, and the potential social and economic impact in Canada.
- National telecommunications policy — Personnel continued to provide leadership in promoting a national policy which would rationalize the "patchwork quilt" of ownership and regulation in telecommunications across the country. National policies and standards would produce economic benefits by ensuring a strong and efficient national network. The federal government is expected to announce the cornerstones of its policy shortly.
- Cellular mobile radio — Personnel promoted the competitive licensing of cellular mobile telephone service which begins in Toronto and Hamilton on July 1, 1985, by Cantel Inc. and Bell Cellular Ltd.; and,
- Telephone company rate increases — Staff continued to look out for residential and business telephone service consumers, by intervening in Bell and B.C. Tel rate proceedings. Bell Canada was given a two per cent interim increase for 1985 and reported it would not request another increase until the spring of 1986.

Other telecommunications submissions included: alternatives to extended area service charges, mobile satellite policy, enhanced services, rate rebalancing, structural separation of competitive services, and proposed changes to the Bell Canada Act.

Industry Assistance and Technology Applications

Staff was also successful in meeting its objectives in the areas of support for Ontario's communications industries and the application of a new communications technology. Accomplishments in these areas in 1984/85 included:

- the provision of assistance to 17 small to medium-sized communications businesses. Assistance ranged from successful access to government funding assistance and manpower programs to referrals to potential partners;
- initiation of a joint-referral program with Ontario's Ministry of Industry and Trade, co-ordinating assistance provided to provincial communications industries;
- the introduction of TABS (Telidon Aviation Briefing Service) in 24 locations throughout Ontario. TABS uses Telidon technology to provide pilots with weather information on a regular basis; and,
- the production of a Telidon videotape presentation entitled "The History of Communications in Ontario." Developed to celebrate the province's bicentennial, the tape marked the first time sound was used with a visual presentation of Telidon graphics.

Other industry and technology projects included participation in the development of a fibre optic freeway traffic management communications system; co-ordinating 13 ministries' uses for mobile satellite service, and published studies on "The Information Economy" and "Trends in New Communications Technologies."

Provincial/Municipal Transportation

Municipal Transportation Division

Staff managed the ministry's municipal transfer payment programs; assisted municipalities in the development and operation of their transit systems and construction and the rehabilitation and maintenance of their road systems.

Personnel also provided guidance and expertise to municipal authorities in identifying their transit and road needs and developed a fair and equitable distribution of subsidy funds. They also carried out verification procedures to ensure legislative and policy requirements were met.

The division was supported in the managing and monitoring of the municipal roads subsidy program by the staff of the regions and districts.

Municipal Roads Office

Staff were responsible for program planning, policy development and evaluation, and the overall administration of all municipal road subsidy programs.

Municipal Roads Program

During the 1984-85 fiscal year, road grants were provided to 839 municipalities and 45 Indian Reserves under the Public Transportation and Highway Improvement Act.

Some of the major projects subsidized included road/bridge improvement or expansion such as Prairie Siding Bridge in Kent County and Taylor Kidd Blvd. in Frontenac, Lennox and Addington Counties. There were also eight major railway grade separation projects: Major MacKenzie in York Region, Gardiner's Road in Frontenac County, Grenville Ave. in Thunder Bay, Brimley Rd. in Scarborough, Hyde Park Road (2) in London and Middlesex County, Derry Road in Peel Region, and Dundas Street in Metro. In addition, 37 municipalities received subsidy for the installation of traffic signals.

Funds were provided under agreement, toward the operating deficits of seven municipal ferry services.

Highway Connecting Link Program

There were 888 km of municipal roads covered by connecting link agreements. MTC funded 126 agreements with a total expenditure of $15,441,697. An additional $2,154,494 was spent on maintenance activities in towns, villages and townships.

Development Road Program

Development road work are those municipal projects which would ordinarily place a financial burden on municipalities. MTC subsidized these projects under agreements with each municipality up to 100 per cent of the total cost.

The roads remain under the jurisdiction of the municipalities with work done either on a day-labour basis or by contract. There were 16 projects, resulting in an expenditure of $4,223,534.

Unincorporated Areas

MTC contributed $4,837,908 for maintenance and $1,739,418 on road and bridge improvements involving over 60 projects in the unincorporated areas. There were 18 statute labour boards, 258 local road boards, 34 Indian Reserves and 180 other groups which received funds for roads in such areas.

SUMMARY

Area	Total Kilometres of Road	Approved Expenditures	Subsidy Paid
Metro Toronto	728.4	$ 49,442,976	$ 23,527,938
Upper Tier	19,780.3	244,315,600	153,385,400
Lower Tier	110,756.6	632,757,200	305,606,700
Computer Systems			
Metro	—	2,221,924	1,110,962
Peel	—	1,689,200	884,600
Total	131,265.3	$930,426,900	$484,475,600

Transit Office

Personnel was responsible for the ministry's transit program policy development and evaluation, administration of municipal transit financial assistance programs, development and management of operational improvement and demonstration projects, and assisting in planning municipal and provincial transit system improvements.

A total of 70 municipalities with municipal transit service received $129.1 million toward operations, and $191.7 million toward capital items and construction. Transit operating assistance provided a subsidy to cover 50 per cent of the theoretical net cost calculated on the basis of a target revenue/cost (R/C) ratio established for each municipality.

Also, additional subsidy up to a limiting amount was provided to those municipalities falling short of their target R/C ratio. Municipalities experiencing an above normal population growth also received additional subsidy.

As well, municipalities introducing a new major rapid transit facility, were eligible to receive special subsidy for the initial years of operation. Agreements were developed on an individual basis, incorporating municipal initiatives related to co-ordinated land use, transportation policies and detailing the operating subsidy terms.

Construction on the Scarborough Rapid Transit continued. The official opening on March 22, 1985, of the 7.2 km Intermediate Capacity Transit System (ICTS) marked the birth of a new generation of urban transit technology for Metro Toronto. It introduced technology design by the Ontario Government's Urban Transportation Development Corporation (UTDC).

Toronto Transit Commission (TTC) placed orders in 1984 for 124 new subway cars to replace the 30-year-old "Gloucester" cars first ordered for the Yonge St. subway in 1954. As well the TTC ordered 52 articulated streetcars to replace its existing fleet of PCC conventional streetcars. In addition, the TTC placed an order for 122 transit buses to replace 75 existing buses and provided 47 buses for expansion purposes. Seventy-two additional buses were ordered by other municipal transit systems throughout the province.

In Ottawa-Carleton Region, approximately 20-lane km of exclusive busway was available for revenue service. That represented about 25 per cent of the total 86-lane km system, scheduled to be completed by 1990.

Operational reviews were carried out in a number of municipalities, including Stratford, Niagara Falls, Cobourg, Pickering, Cambridge, Cornwall and Brantford. As well, management reviews were carried out in Brampton and Burlington.

Examination of integrated transportation terminals was undertaken in Owen Sound and Kitchener. Plans continued for an integrated transit service in the Kingston area.

Through the joint efforts of the Ontario Urban Transit Association (OUTA) and the MTC Transit Office staff, the Ontario transit properties have responded well to the "transit performance review guidelines." Many properties have completed internal reviews with encouraging results.

Most recently, funding is being reviewed for possible assistance for OUTA's transit improvement centre; its role will be to identify training needs and channel information in support of improved effectiveness and efficiency of transit systems.

In 1984, a total of 50 municipalities received financial assistance for the provision of specialized transit service for physically disabled persons. As a result of a comprehensive program review, the basis of subsidy mechanism was altered to encourage effective operation and improvement of service productivity. Also, a special funding of $1.5 million was secured from BILD to assist municipalities acquiring vehicles, such as the Orion II, which were specifically designed to transport physically disabled persons.

The Ontario Urban Transit Fact Book, which provided a summary of the operating characteristics, and results measurements of Ontario's municipal transit systems, was issued in an improved format.

Work continued on the transit information, communication and control systems (TICCS) project to develop and implement a range of computer based transit support packages to assist in managing and controlling many of the important functions of transit. The second year of development saw several major product installations completed.

The development and implementation of a computer assisted passenger reservation, scheduling and dispatching system for the TTC's Wheel-Trans service for physically disabled persons was progressing with part of the system installed.

A study undertaken to determine the computer needs of small and mid-sized transit properties outlined strategies for the appropriate and effective use of computers.

The American Public Transit Association (APTA) at the 1984 annual meeting in Washington D.C., honoured the TTC with their Management Innovation Award for its communications and information system. As well, the Government Agency Transit Achievement Award was given to MTC, recognizing the outstanding execution of its public transportation responsibilities and contributions to the transit industry as a whole.

Interregional Transit Co-ordination

MTC established a mechanism, including a staff position, to support the achievement of improved transit co-ordination between the 13 transit systems in the greater Toronto area.

Issues discussed at an interregional transit forum included service co-ordination, potential service duplications, integration where feasible and desirable.

External Relations Co-ordination

MTC's wide range of contacts with transportation agencies of other governments was co-ordinated through this office.

Staff assisted in development and administration of transportation policy to ensure such policies reflect the views of the government.

In the past year, MTC signed a memorandum of understanding with Transport Canada to undertake, where possible, research and development activities of mutual interest. The process will be focussed on specific areas, including transportation technologies, infrastructure efficiency and effectiveness, international competitiveness and information exchanges.

Payment Verification Office

This office acts as a ministry financial and management control regarding municipal transfer payments.

Personnel were engaged in the auditing of municipalities throughout the province to verify, on behalf of MTC and the Ministry of Northern Affairs, municipal transfer payments to ensure compliance to government and ministry policies, directions, grant conditions and agreements.

This function covered the normal subsidized road, transit and municipal airport expenditures and also specific programs concerning expressways, connecting links, development roads and special agreements. Personnel were also responsible for auditing the unincorporated areas covering statute labour and local roads boards.

Major project audits were performed on the expenditures introduced by UTDC and affiliates and various consultants on behalf of the development of light rail transit technology and other transit related programs.

Transportation Technology and Energy Branch

Branch staff conducted and promoted research, development and the application of transportation and energy technologies and systems which:

- improve the efficiency and effectiveness of Ontario transportation systems;
- support the transportation industry; and,
- foster economic growth.

The following four offices were charged with the delivery of the program, each in its own area of responsibility:

Transportation Technology Office

Staff were responsible for research in urban transit, commercial vehicles and control and information systems. Also, research and a variety of demonstrations were conducted by the automotive energy section.

Urban Transit

Staff continued to work closely with the TTC, Ottawa-Carleton (OC) Transpo, and the private sector to improve the performance and cost-effectiveness of transportation systems. Staff also provided technical expertise to Government of Ontario Advanced Light Rail Transit (GO-ALRT) to assist in defining the vehicle suspension and guidance system and choosing an optimum propulsion system.

Personnel participated with other ministry and government agencies in the rotary and floating frame truck programs and analyzed the dynamic performance of both trucks.

Assistance and technical expertise were given to the following:

- the UTDC in the areas of linear induction motors (LIMs) and the transporter project;
- the Municipal Transportation Division and its implementation of the Scarborough Intermediate Capacity Transit System (ICTS)
- project; and,
  the Transit Office and several Ontario transit properties in the testing and evaluation of articulated buses.

New applications for such advanced technologies as vision systems were explored to determine their application in transit maintenance operations. Vision systems are optical image analysis systems that evaluate, interrelate, and produce inferences about objects from the result of such image analysis.

Commercial Vehicles

Staff conducted extensive testing on truck tires, braking systems performance, modes of vehicle instability, and computer simulation of heavy commercial vehicles.

Personnel developed a mobile truck tire dynamometer used for testing three types of truck tires to compare their characteristics when subjected to braking and turning on wet pavement.

Staff also developed and used computer simulations to better understand the performance and handling characteristics of heavy truck combinations for both engineering and safety purposes.

Vehicle tests were conducted on behalf of the Canadian Conference of Motor Transport Administrators (CCMTA) Roads and Transportation Association of Canada (RTAC) Vehicle Weights and Dimensions Study. The objective was to produce the technical background for uniform truck size and weight regulations across Canada.

Automotive Energy

Through research done in co-operation with various universities and the private sector, staff continued to support of the Transportation Energy Management Program's (TEMP's) efforts to promote the utilization of propane, natural gas, and methanol as alternatives to gasoline and diesel fuels. Research, development and demonstrations were conducted on engines, conversion equipment, fuelling systems, fuels, and oils.

Control and Information Systems Office

Section personnel conducted research and development activities to assess the applicability and promote the use of advanced technologies in Ontario transit systems, including:

- investigated robotic technologies with the view of having Ontario manufacturers develop a mobile robot for the labour-intensive task of cleaning subway car interiors;
- supported the TICCS project by providing technological expertise on an as-needed basis;
- investigated new hardware technology which could be applicable to automated transit vehicle monitoring; and,
- evaluated a vision system (optical image analysis system) for its applicability to automated guideway transit.

Technical Publications

Staff published and distributed a wide variety of technical and marketing materials on behalf of two branches: Research and Development (R&D) and the Transportation Technology and Energy Branch. They continued to support TEMP marketing efforts, particularly the Trucksave program.

A LISA graphics computer for the production of graphs, charts, and drawings was introduced. Complex design drawings are still done by hand but most are now done on the LISA. The resulting increase in productivity has compensated for a reduction in graphics staff. Word processing staff also created a dynamic data base to maintain a record of active and proposed research projects.

Activities of particular interest this year included a series of about 30 papers and artwork for hundreds of slides prepared for the mission to Saudi Arabia and display panels and seminar manuscripts for an Ontario Good Roads Association (OGRA) convention.

Experimental Testing

Section staff provided expertise and testing facilities, including research and large scale test laboratories, mobile research laboratory, and a commercial testing facility, unique in Ontario. These facilities also include a digitally controlled chassis dynamometer designed to test light-vehicle exhaust emissions, fuel economy, and alternative fuels.

Bridges were instrumented on behalf of the structural research section and the data collected, recorded, digitized, and submitted for analysis. Two new microcomputer-based data acquisition systems were developed and assembled to assist commercial vehicle testing and stress analysis. Staff developed a digitized point load tester to determine the breaking strength of rock aggregates in co-operation with the R&D Branch, Materials Office, and industry. Finally, personnel assembled a teaching robot to assist interested ministry personnel in understanding their basic hardware and software functions.

Transportation Energy Management Program (TEMP)

This program, a joint venture with the Ministry of Energy, was engaged in reducing Ontario's dependence on petroleum fuels in transportation, through initiatives in two main areas: development of alternative transportation fuels and the marketing of energy management measures.

Alternative Transportation Fuels

ATF staff, with support of staff in the Transportation Technology Office, conducted and co-ordinated a program of research and demonstrations of alternatives to conventional oil-based transportation fuels. Following investigation of barriers facing the development and use of natural gas, propane, and methane as alternative fuels, personnel were active in three areas:

Applied Research

- conducted research at the Royal Military College to develop promising natural gas absorption media, which may lead to the adoption of low-pressure storage of natural gas for vehicles (NGV);
- investigated the cold-starting performance of methanol/gasoline blends in modern spark-ignition engines;
- conducted chassis dynamometer evaluation of factory-modified methanol vehicles; and,
- continued research with Shell Canada and Ford Canada to develop superior neat methanol fuel formations.

Technology Development

- continued engine and chassis dynamometer testing of commercial natural gas conversion systems in light and medium duty spark-ignition engines;
- completed the development and testing of a heavy-duty propane-powered engine at the Ontario Research Foundation;
- continued testing of one propane and two and four-stroke diesel transit bus engines in UTDC engine dynamometer laboratory;
- performed the technical evaluation of the prototype propane-powered bus at OC Transpo; and,
- conducted a theoretical evaluation of commercial NGV home compressors.

Fuel Demonstrations

- continued with the OC Transpo propane bus demonstration;
- initiated a NGV bus demonstration with the Hamilton Street Railway Co.;
- completed the Union Gas NGV fleet demonstration;
- continued with the Elgin County NGV school bus demonstration; and,
- began a new phase of the MTC/Suncor methanol/gasoline blend vehicle fleet demonstration.

Marketing

Staff worked with industry, municipalities and the general public to disseminate information and promote adoption of fuel-saving measures, technologies, and the use of available alternative fuels, through seven sub-programs.

DriveSave

DriveSave staff promoted conservation and fuel economy measures to the general public, beginner drivers, and automobile-light truck fleets, through seminars, displays, and the distribution of information and promotional material, including pamphlets, posters, and films. During this past year, over 2.5 million pieces of fuel economy information were distributed in Ontario.

Staff held fuel economy seminars throughout Ontario for fleet managers and initiated a new seminar series for driver instructors.

Trucksave

With more than 215,000 trucks operating in Ontario, staff had a large audience for the promotion of fuel savings. Over 500,000 publications were distributed, together with films and slide presentations.

A study of the Trucksave sub-program was conducted, and from the results and findings of this study, staff developed a marketing strategy to improve the use of Trucksave's services and resources. This included development of a specialized information package for urban trucking operations and guides to computerized routing and record keeping.

The Third Annual Trucksave Fuel Economy Challenge saw the number of entries double. The event was an excellent testing ground for new fuel-efficient trucks. Fleet managers found it sparked serious driver interest in saving fuel.

Share-A-Ride

Personnel promoted vanpooling and carpooling, with the objectives of saving fuel and reducing road congestion. Associated benefits of ridership included lower costs for employers, through reduced parking demand and lower absenteeism. Individuals enjoyed the benefits of reduced commuting costs and release from the stress of driving.

Share-A-Ride has been responsible for the creation of 500 employer-operated and owner-operated vanpools and 650 carpools. An additional 1,400 carpools were attributed to the 39 carpool parking lots in the province.

Municipal

Staff continued to work closely with municipalities in identifying conservation and energy management opportunities, maintaining contact through the municipal transportation energy advisory committee (MTEAC). For the third consecutive year, the MTEAC newsletter was distributed on a quarterly basis, with a subscription of nearly 5,000.

Individual projects operating within the municipal subprogram included the following:

- development of a municipal fleet management information system software package;
- implementation of measures (primarily traffic related) introduced in the Metro Toronto area transportation energy study, phase II and the Ottawa-Carleton transportation energy management study; and,

— initiation of a project that will examine energy conservation opportunities in small and/or rural municipalities across the province.

ATF Marketing

Promotional staff moved toward support for the newly emerging natural gas fuel market, while maintaining a high market support function of the propane fuel industry. Staff produced combined technical and promotional manuals for both fuels and conducted a seminar on alternative fuels for the fleet industry.

Teleconferencing

Staff distributed more than 4,000 brochures and reports and 130 copies of a new videotape, "Training for Success." Several training sessions were held with government departments and private companies. Personnel provided assistance in the establishment and implementation of a course on teleconferencing at Sheridan College (Oakville) and to Canadian Association for Distance Education for several national teleconferences.

Staff organized a one-day seminar "Teleconference '85," introducing the various teleconferencing options and technologies.

Transportation Industry Office (TIO)

TIO staff supported the manufacture and sale of goods and services in the transportation industry, domestically and internationally.

They offered support to Ontario companies in product development. Personnel were involved in such projects as the commercialization of an MTC-developed device for testing the reaction time of an air brake system on tractor-trailer units and the development of equipment for pavement repair.

To support Ontario companies in export marketing, TIO established foreign government contacts and provided managerial and technical input to strengthen proposal or project development. Contacts were made with governments in Trinidad, Taiwan, Saudi Arabia, West Africa, and Jordan.

Personnel established contacts with pertinent federal and provincial bodies as well as industry associations, to facilitate work on both the domestic and international fronts.

Policy Planning Branch

The four offices were established in support of the MTC policy development process. The following is a summary of the achievements and specific activities:

Urban Transportation Policy Office

Staff successfully supported the strategic requirements of the municipal transportation program by the following achievements:

— completed discussion and policy papers on the development and application of strategic planning in urban transportation and on the improvement of the planning and program process;
— completed position papers on new transportation opportunities and initiatives on transit ridership, aging and transportation, multimodal terminals and rapid transit strategy in Kitchener, Waterloo, Cambridge and Niagara Falls/St. Catharines;
— supported MTC on the development of a regional transportation perspective for the greater Toronto area and positions regarding several rapid transit and land development proposals; and,
— managed the urban transportation assistance program which provided technical and financial support for studies in several municipalities throughout Ontario.

Transportation Demand Forecasting Office

Staff made a concerted effort with other ministry offices and municipalities to accomplish the following objectives:

— completed the comparison of the 1971 and 1981 place-of-residence and place-of-work relationship, identified the changes and the causes of changes, and distributed the information to municipalities;
— influenced the federal government to retain the 1986 census program, and the place-of-work question;
— completed the joint assessment of GO-ALRT demand forecasts with the municipalities;
— continued improving the demand forecasting techniques by conducting such research projects as area isolation and non-work travel demand;
— continued monitoring land use and travel behaviour changes by conducting origin-destination surveys on highways and GO Transit services, and developing a time series data base; and,
— continued providing input to meet the data needs of the ministry's highway, regulation, municipal and provincial transportation programs for planning and delivery purposes.

Intercity Transportation Policy Office

Personnel continued to represent the interests of Ontario's public transportation and private vehicle passengers through research, analysis and policy development work which involved:

— position papers relative to the line-haul bus system, regional air service, high-speed rail investment and tourism considerations;
— policy proposals for bus industry re-regulation and the bus/rail fare relationship;
— completion of a task force study on the role of the automobile and a report on the impediments to its effective use;
— continued encouragement of municipal and commercial participation at intermodal terminal sites and an agreement for a first demonstration at Gravenhurst;
— additional surveys of northern Ontario automobile passengers to broaden the information base of previous multi-modal investigations;
— created a carrier working group to focus on opportunities of bus/rail co-operation; and,
— published two volumes of a three-part perspective on provincial public transportation, and a report on public mode fares.

Goods Distribution Systems

Staff developed specific activities in line with current strategic directions and supported the achievements of ministry objectives, particularly related to economic growth.

Emphasis was directed to promoting the efficient export of products to the U.S. market through improved transportation distribution. This involved close liaison with the Ministries of Industry and Trade and Northern Affairs. Major program elements included:

— advisory service to small Ontario export-oriented shippers to resolve their transportation/distribution problems;
— promotion of Ontario interests related to federal legislative changes, e.g., Crow, National Transportation Act;

— establishment of a satellite office in Timmins to provide advice to northern Ontario businesses on the effective movement of raw materials, finished products and consumer goods;
— began the process of opening a second satellite office in Thunder Bay;
— undertook numerous plant site location studies to encourage the establishment of new manufacturing plants in Ontario;
— completed an analysis of the competitive access of southern Ontario shippers to international air cargo services;
— promoted the demand for computerized goods transportation information services, resulting in services being introduced on a commercial basis; and,
— continued support at the federal level for the concerns of Ontario's oilseed crushing industry regarding the subsidy of western competitors.

Rail Office

Staff was responsible for advocating and co-ordinating Ontario's interests in all rail-related activities, including promoting and assisting in the development of a suitable provincial rail transportation system for both passengers and freight. They were also involved in a large number of programs such as: abandonments and discontinuance assessements; branch line rationalization; review of the level and quality of passenger services; regulatory activities; freight issues; promotion of intermodal services and service development; safety issues, and operations and technology.

An important development was the completion of phases I and II of a joint federal/provincial study of the transportation needs of communities presently served by VIA Rail in northern Ontario. It was sponsored by MTC and Transport Canada with Ministry of Northern Affairs (MNA), VIA Rail and Manitoba participating.

A number of outstanding abandonment applications were investigated including CPR's Port McNicoll and Kingston subdivisions.

Staff continued investigation of acquiring abandoned rail corridors either for MTC, or other government agencies, to protect viable future corridors; and with Ministry of Natural Resources (MNR) completed a report recommending acquisitions.

The first draft of the Ontario rail plan was completed and distributed for specific consultation purposes.

Staff were closely involved in passenger-related issues particularly through a submission to the Minister of Transport Canada's rail passenger action force which set out the province's position on VIA services and legislation for the rail passenger agency. Liaison with the States of New York and Michigan was continued.

Staff also participated in a task force on commuter rail legislation and negotiations with the federal government: Thunder Bay rail issues task force; the railway cost of capital study and submission and attendance at follow-up hearings.

Submissions were also made to the Canadian Transport Commission (CTC) regarding CN-CP's acquisiton of ConRail's Canadian assets and the potential for shortline rail operation in Ontario.

Staff worked in a group of committees to define policy and implementation of projects affecting public transportation modes, including the rail, bus and intermodal committees. They also represented Ontario on VIA's regional advisory council.

Personnel continued to be involved in rail safety issues, particularly transportation of dangerous goods, railroad crossing and the discontinuance of caboose usage. Other regulatory issues involved inter-switching limits, common rate making, impact of Staggers Act on Canadian shippers and carriers, domestic deregulation, commuter and passenger rail legislation, freight rate issues, and railway operations and technology.

Air Office

Staff was responsible for policy and program development of air transportation in Ontario. The activities of the office were divided into three broad sub-groups: remote airport development, municipal airport assistance, and air transportation influence.

The remote airport development program consisted of the development and maintenance of a system of public airports in remote areas of northern Ontario. Capital funding was through the Ministry of Northern Affairs and maintenance funding through MTC.

Staff was responsible for the development of policy and standards, preparation of multi-year programs and monitoring of current programs. The system now includes 20 operating airports with two more under construction.

Staff also assisted municipalities in developing and maintaining a system of airports to facilitate the movement of people and goods and support economic development. Presently, it covers the entire geographical area of the province.

Staff also assisted municipalities in planning, designing and the operation of their airports and entered into agreements with them for requested subsidies towards construction projects and maintenance expenditures. The program, supplemented by funds made available through BILD, was made available to 46 municipalities.

A major staff function was the monitoring of the level of air passenger services in Ontario. This involved, in part, an assessment of air carriers' applications for new and improved air services submitted to the CTC, the federal agency responsible for licensing and regulating commercial air service activities.

The following special policy issues continued to be addressed during the past year:
— urged the federal government to resolve jurisdictional complexities related to airport zoning and airport land use development;
— initiated a study to review the use of airspace to all aircraft operators and air carriers in order to improve navigation, landing, weather and communications aids in Ontario;
— monitored and reacted to federal government initiatives with respect to the new domestic air carrier policy which simplifies regulatory procedures, provides airlines flexibility and encourages competition;
— promoted Toronto as a gateway centre for international air passenger and cargo services in order to enhance trade and tourism opportunities for Ontario; and,
— monitored and reacted to federal government initiatives related to airport licensing policies, airport regulations and improvements of federal airports in Ontario.

Personnel were involved in implementing the Ministry of Health's system of medical emergency heliports. They continued to develop standards and provide assistance and guidance related to site selection and licensing procedures.

Staff continued to support the flight planner for Ontario, where flight schedules of local and regional air carriers operating within Ontario are listed in the teleguide system. They continued to distribute the Ontario Airport Facilities map, intended to provide information to users as to the location of all significant Ontario airports and the facilities that existed at each location.

Staff also initiated a program of increased use of passenger surveys to acquire a better understanding of the needs and expectations of air travellers in a constantly changing environment.

Marine and Pipeline Office

Continuing to fulfill the responsibility of representing Ontario on matters relating to marine and pipeline facilities and services, staff maintained appropriate liaison with provincial, federal, private and international organizations.

Major programs and activities recommended by the Great Lakes/ Seaway Task Force continued. A large portion of these activities involved the celebration and promotion of the 25th anniversary of the St. Lawrence Seaway.

The seaway anniversary logo was developed for this occasion and used extensively on ministry materials including letterhead, brochures and the official road map.

A travelling marine showcase visited 18 locations in Ontario, providing an opportunity for thousands of visitors to view exhibits relating to the past, present and future of the Great Lakes/Seaway. In addition, a marine display within the ministry's bi-centennial information trailer was shown throughout the province at 17 fairs, exhibitions and special events between June and October.

Personnel also provided assistance and funding for the production of the "The Great Lakes/St. Lawrence Seaway System," a major bilingual information publication, and the production of a 14-minute promotional film: "The System," along with information and promotional posters.

The final report of the "Ontario Ports Study" was completed in June and distributed to appropriate government and marine officials. An Ontario shipyard demand study was completed, and investigations continued into port pricing practices in co-operation with federal and other agencies.

Staff participated in and supplied information for the federal task force on deep sea shipping, and played a major role in promoting the interests of Ontario's shipyards which are the most efficient in Canada.

They also undertook a study profile of marine carriers, clarifying the importance of this industry to the province and Canada; participated in the Great Lakes/St. Lawrence Marine forum meetings, bringing the Ontario viewpoint before representatives from eight American Great Lakes States and Quebec.

In January, the Marine & Pipeline Office joined representatives from Ontario, Quebec, the eight Great Lakes States and Seaway agencies, for a maritime trade mission to England, France, Holland, Germany and Belgium.

GO-ALRT Program

GO-ALRT was established in 1983 by the Ontario Government to provide improved transit service to the municipal regions between Hamilton and Oshawa.

Two route corridors were developed and total over 200 km. The lakeshore corridor from Hamilton to Oshawa was the major emphasis for initial implementation. It consisted of two sections: Hamilton-to-Oakville and Pickering-to-Oshawa.

Program Management

During 1984-85, continued program direction was achieved through a senior management team drawn from MTC, GO-Transit and UTDC.

Fixed Facilities

Design standards were made available for all components of the fixed facilities work. A major review of station design concepts resulted in the selection of a basic station configuration and in the preparation of station design standards.

Provincial Highways

Central Region

Construction

The twinning of the Burlington Bay James N. Allan Skyway continued well ahead of schedule. The segmental portion of the structure was completed in 1984 and the entire project expected to be completed in early fall of 1985. Roadwork in the vicinity of the skyway from Hwy. 403 to Hwy. 2 continued, with completion in early 1985 expected. This project was one of several in the Burlington-Hamilton corridor.

Construction of Hwy. 406 in the St. Catharines area was completed, as was Hwy. 55 from QEW to Niagara-on-the-Lake.

Rehabilitation of the historic Grand River Bridge in Caledonia completed the current work relative to the Caledonia by-pass.

In the Toronto area, the Hwy. 401, 427, QEW rehabilitation effort continued, with projects at the intersection of Hwy. 427 and 401 and QEW work from Hwy. 427 westerly to the Credit River.

The core-collector extension westerly was in progress in the Hwy. 401-403 area, to be completed in summer of 1985. Other major projects were underway on the Brampton by-pass and Hwy. 427 from Rexdale Blvd. northerly to Albion Rd.

The sound barrier program continued with several projects throughout the region.

In the Port Hope area, work was concentrated in three major areas. Hwy. 404 construction continued with award of a grading project from Bloomington Rd. northerly and Hwy. 35/115 progressed from Hwy. 2 to Tanton Rd. on the south end and from the Queensway to Hwy. 7B in Peterborough.

Engineering and Right-of-Way

A total of 38 projects were designed and cleared for contract advertising, covering all types of highway improvements throughout the region.

Emphasis for design of major freeway projects continued particularly in the Burlington Beach corridor, Hwy. 410 to Brampton and on Hwy. 35/115 in the Peterborough area.

The design of rehabilitation projects, including bridge deck rehabilitation, was completed on Hwy. 401 west of Yonge St. and a similar program started on Hwy. 401 to the east of Yonge St.

Major planning studies were started for Hwy. 6 between Ancaster and Caledonia and Hwy. 6 from Freelton to Guelph.

Municipal

Staff was responsible for managing the municipal roads programs, including overall budget control for the subsidy and King's Highway connecting link programs in central region.

During the year, 115 municipalities and six Indian Reserves received regular subsidies under the Public Transportation and Highway Improvement Act.

In 1984-85, the office administered a connecting link program involving 33 construction projects with a provincial contribution of approximately $3,928,000 and $461,000 for maintenance in towns and villages.

Maintenance

In the year preceding March 31, 1985, the highway network grew approximately 76 two-lane kilometres to a total of approximately 5,140.

Hot mix patching was carried out in all three districts for a total of 35,079 tonnes.

Another severe winter saw 156,115 tonnes of salt and 237,501 tonnes of sand used in the winter maintenance activities.

On Toronto district freeways, emergency patrols drove approximately 798,000 kilometres, provided assistance to 23,512 motorists and dispensed 8,950 litres of fuel.

Drivers and Vehicles

Driver Examination and Driver Improvement

Staff conducted 265,936 pre-test examinations and 201,063 road tests for driver's licence applicants. As well, 439,132 temporary driver's licences were issued. The driver improvement counsellors conducted 12,565 demerit point interviews, 153 medical hearings, 253 accident repeater interviews, 10 school bus, and 103 medical waiver hearings.

Licence Issuing

Licence issuing office staff located in Toronto, Oshawa and Hamilton dealt with 346,691 transactions.

Vehicle Inspection

Staff checked 17,025 commercial motor vehicles both at truck inspection stations and carrier terminals. Of these, 3,990 vehicles were detained, removed from service or tagged unfit. A total of 30,116 cars and light trucks were inspected at either permanent or portable lanes and 1,607 vehicles were removed from service. Approximately 2,393 school purpose vehicles and 1,260 commercial buses were inspected. Also, 6,206 investigations of motor vehicle inspection stations were conducted.

Highway Carrier

Personnel inspected 1,014,166 commercial motor vehicles which resulted in 10,127 court convictions.

Road and Bridge Sections	Road Kilometres	Approved Expenditure	Subsidy Paid
1. Metro Toronto	728.4	51,664,900	24,638,900
2. Regions	3,573.3	73,983,800	38,866,500
3. Counties	1,476.3	13,400,600	9,822,700
4. Townships and Indian Reserves	8,378.6	31,465,700	17,054,700
5. Urban Municipalities	16,151.0	237,954,600	102,811,900
	30,307.6	$408,469,600	$193,194,700

Eastern Region

Construction

Major widening and resurfacing of the Ottawa Queensway from Maitland Ave. easterly to Bronson Ave., started in 1983, is anticipated to be completed in 1985.

Reconstruction of Highway 507 from 11 km south of Highway 503 southerly 6.4 km was completed in October 1984.

The Moira River, Salmon River and CNR structures, all in the Belleville area, were rehabilitated.

Eastern region supervised construction on two reconstruction contracts within central region, Highway 30 from Codrington northerly 6.7 km and Highway 503 from Kirkfield northerly 3.1 km.

Reconstruction or resurfacing was also carried out on Highways 16, 17, 30, 417, 511 and 523.

Engineering and Right-of-Way

Staff prepared 19 capital construction projects for contract award in 1984. An additional 15 miscellaneous projects were also processed.

The ministry completed the Highway 416 environmental assessment report — one stage submission, group "A" project for submission to the Ministry of Environment for review and approval under the Environmental Assessment Act (EAA). A planning study of Highway 417 (Ottawa Queensway) from Maitland Ave. to Acres Rd. was instituted re the widening of Highway 417 in conjunction with the construction of the OC Transpo transitway. Planning was in progress for the section of Highway 417 from east of Main St. to east of Belfast Rd. along with a planning study of Highway 17, Champlain St. interchange easterly to Navan Rd. Design was well underway for the Highway 417, St. Laurent interchange. An inter-ministry staff team, composed of members from MTC and Natural Resources, plus the St. Lawrence Parks Commission, along with outside agencies was formed, and is studying the enhancement of the Loyalist Parkway, Highway 33 from Collins Bay to Trenton.

Municipal

A total of $94,919,510 in subsidies was paid to nine counties, one regional municipality, 139 townships, 63 urban municipalities, three Indian Reserves, and several unincorporated municipalities. In addition, $2,353,660 was spent on 23 connecting links, and $2,783,977 on 16 development roads.

Provincial contributions were also made to: four municipal ferry services — $937,800; 92 municipal traffic signals — $1,051,690; two municipal airports — $341,511; special sidewalk projects — $89,476.

Maintenance

Major winter activities consisted of 1,583,058 km of snowplowing, application of 97,826 tonnes of salt, and the spreading of 73,633 tonnes of sand.

Summer maintenance activities included 4,091 km of centre-line painting, and 4,093 km of edge-line painting. A total of 906 trees and 1,315 shrubs were planted and 14 hectares were seeded with grass. Approximately 2,550 dead and dangerous trees were removed; 3,529 hectares of weeds and brush were sprayed. Traffic signal work included four new installations, three modifications, and installation of two flashing beacons. A total of 84 new light units were installed, with 161 others modified. Two ferry services were operated. The Wolfe Island service made 12,060 trips carrying 324,607 vehicles. The Glenora service made 20,517 trips carrying 264,890 vehicles.

Permits were issued for 623 building projects, 78 entrances, nine encroachments, 521 field advertising signs and 246 guide signs.

Drivers and Vehicles

In the fiscal year 1984-85, driver examination staff conducted 103,174 pre-examinations and 48,840 road tests for driver licence applications. Driver improvement counsellors held 3,159 demerit point interviews, 77 hearings and 46 accident repeaters.

Vehicle inspection staff performed 3,059 commercial motor vehicle inspections, 1,687 motor vehicle inspection station investigations, 2,166 school bus inspections, 462 other bus inspections. The mini portable inspection program inspected 1,099 automobiles.

The regional highway carrier program, in spite of continuing constraints, inspected 175,238 commercial motor vehicles at truck inspection stations and within designated area patrols.

Regional investigation and prosecution staff completed 1,120 commercial vehicle report investigations.

The two MTC licence issuing offices, situated at Ottawa and Kingston district offices, completed 194,266 vehicle related transactions. In addition, region personnel supervised the day-to-day operations of some 53 appointed licence issuing agents.

The fully automated vehicle registration system became more efficient, with less downtime and technical difficulties. And ministry staff and appointed licence issuing agents became more proficient in its use.

Southwestern Region

Construction

Construction of Highway 403 between Brantford and Woodstock continued with the award of two contracts for the paving of a further 22 km from Highway 24A westerly.

Contracts were awarded for complete reconstruction of Highway 7, from Shakespeare easterly 6.7 km; Highway 12, from Atherly narrows westerly 6.8 km; Highway 70 from Shallow Lake northerly 7.1 km; and, for improved safety, a curve revision on Highway 4 north of Port Stanley, and major improvements to the intersection of Highways 9, 10 and 24.

Resurfacing with minor widening of the existing roadway was carried out on Highway 2 from Chatham westerly 33.4 km and Highway 89 from Cookstown to Alliston 12.2 km. Included in these contracts was the replacement of three structures on Highway 2.

Resurfacing contracts were awarded on Highway 4, 61.3 km; Highway 6, 9.3 km; Highway 7, 47.0 km; Highway 8, 7.9 km (including replacement of the Black Creek Structure in Sebringville); Highway 9, 24.2 km; Highway 10, 2.1 km and Highway 59, 22.4 km for a total of 174.2 km.

Rehabilitative work was performed on a total of 20 structures at various locations on Highways 2, 4, 7, 9, 401 and the Kitchener/Waterloo Expressway. Landscaping contracts were awarded on Highway 3N at Essex and St. Thomas on Highway 402 from Strathroy easterly and on Highway 11 in Oro Township.

As part of the Region's "weight control program", weigh scale sites were established on Highway 7 at Wyoming, Highway 7 east of Shakespeare and Highway 6 north of Guelph.

Municipal

A total of $133,977,200 in subsidies was paid to counties, regions, cities, towns, villages, townships and Indian Reserves.

Approximately $5,570,000 was expended on 42 connecting link projects and $53,600 for a single development road project.

Maintenance

In addition to routine summer maintenance, traffic signals were replaced or upgraded at eight locations; 10 municipal sidewalk construction projects were subsidized; and the preventative maintenance program of sealing cracks in asphalt pavement continued.

Site improvements were carried out at five patrol yards and three new sand domes were erected. One of the domes was an experimental structure constructed of steel trusses and covered in fabric.

A relatively heavy winter was experienced again last year, but continued good results were reported with our one-person plow trials. Slope improvements to reduce snow drifting were carried out again along sections of highway in Stratford district.

Drivers and Vehicles

Staff conducted 79,977 road tests for driver's licence applicants, up 8.7 per cent from last year, and 119,732 pre-examinations, an increase of 3.1 per cent. As well, 37,952 replacement driver's licences were issued. Driver improvement counsellors completed 6,500 demerit point interviews.

Vehicle inspection staff performed safety inspections on 8,760 commercial motor vehicles both at truck inspection stations and carrier terminals. Commercial vehicles were required to meet the standards set out under the Canadian Vehicle Safety Alliance memorandum of understanding. Also, 2,136 school purpose vehicles were inspected, along with 779 commercial buses. A total of 6,466 cars and light trucks were dealt with at mini-lane operations. This inspection program resulted in plates being removed or surrendered from 1,980 vehicles. As well, 958 complaints were investigated in respect to the motor vehicle inspection station (MVIS) program.

In addition, vehicle inspectors had to prepare for the start-up of the propane inspection program which was administered by both MTC and the Ministry of Consumer and Commercial Relations. Scores of stations were signed up in order to participate in the inspection aspect of the program commencing April 30th, 1985.

It was the second year in which numerous information seminars were held throughout the region for mechanics and licensees registered in the MVIS program. Since routine audits of motor vehicle inspection stations were no longer carried out, the seminars prove to be most beneficial in ensuring good communication links.

March 1st marked the regionalization day for the issuing of prorate plates to commercial motor vehicle owners participating in the Canadian Agreement on Vehicle Registration (CAVR) system. This activity, since its inception, had been carried out strictly by head office. It was a further step toward providing "one-window" service.

Highway carrier staff inspected 881,607 commercial motor vehicles, resulting in 9,392 convictions.

Northern Region

Construction

Major construction work continued on Highway 11, four-laning the Callander Bypass.

Construction also continued on Highway 144 New (Northwest Bypass); Highway 11 Severn Bridge, northerly; Highway 11 Hearst, westerly. Construction work began on Highway 11 Gravenhurst, southerly at Highway 11 (the Tilden Lake area).

Work was completed on Highway 535, Hagar southerly; Highway 63 at North Bay easterly; Highway 11B Haileybury to New Liskeard; Highway 637 west of 69 and Highway 583 Hearst southerly.

Paving and recycled paving was completed on Highway 69 French River northerly, and Highway 101 Matheson easterly.

Structure rehabilitation work was completed on Highway 11 west of Cochrane (Buskegau River); Highway 11 south of Cochrane (two structures) and Highway 169 Bala area (four structures). Structure rehabilitation work continued at Highway 11 west of Cochrane (Fredrickhouse River).

Structure work was completed at Highway 11, Crooked Creek Bridge and Highway 11 at Kenogami.

Engineering and Right-of-Way Office

Staff completed 21 projects (contract plans and documents) for a value of $33,731,000. Approximately 92 per cent was done in-house and 8 per cent by consultants.

They also carried out property acquisitions for the capital construction program and continued with legal, engineering and geotechnical field survey operations to facilitate the program. As well, they carried out environmental and corridor-control activities and provided input into the ministry's pavement management system.

Municipal

Last year, various road assistance programs amounted to $43,991,000 for 149 organized municipalities. These included one county, two regions, three cities, 35 towns, seven villages, 81 townships, three improvement districts and 17 Indian Reserves.

Also administered was $3,970,000 for 20 connecting link projects and $1,570,000 for five development roads.

The BILD program provided $195,900 for job creation funding of six projects.

Within the unincorporated area, $4,073,900 was provided for maintenance and construction on local roads within the unincorporated areas including 112 local roads boards, nine statute labour boards, and numerous special and specific projects.

Maintenance

Summer work was carried out on 5,750 km of King's secondary and tertiary highways. Two ferries were operated at Moosonee and Gardiner. In addition to routine maintenance operations, projects for gravelling, priming, surface treating, mulching, crack sealing and asphalt patching were completed.

Winter maintenance was carried out on most of these highways while privatization of the garage operation repair area continued. Snowplowing, using private units, was increased to 21 plows. Two two-bay additions to patrol garages and three sand domes were constructed. Operational efficiencies were pursued by closing three existing patrol yards and expanding others. Energy conservation was continued by several oil-to-gas conversions and the installation of new energy efficient doors in many patrol garages.

Drivers and Vehicles

Staff, under the direction of the regional office, was divided into two districts: North Bay and Timmins. They served the provincial districts of Parry Sound and Nipissing; the district municipality of Muskoka; the provisional county of Haliburton; the districts of Timiskaming, Cochrane, Sudbury, Manitoulin Island; the regional municipality of Sudbury and the easterly portion of the district of Algoma.

A staff of 66 employees was responsible for driver examination, motor vehicle licence issuing, driver improvement counselling, vehicle inspection programs and enforcement of the Highway Traffic Act, Public Commercial Vehicles Act, the Public Vehicles Act and Motor Vehicle Transport Act.

Twenty-five driver examiners and clerical support conducted a total of 19,868 road tests and 39,547 examinations at nine driver examination centres and 19 travel point locations.

One regional review officer, responsible for driver improvement counselling, conducted a total of 976 interviews with drivers who had reached the nine demerit point level and conducted a total of 12 hearings.

Twelve vehicle inspectors conducted 4,440 commercial vehicle inspections, 630 school purpose vehicle inspections, 89 inspections of church buses, transit buses, physically disabled passenger vehicles, and highway buses.

They also conducted a total of 1,153 audits and investigations of licensed motor vehicle inspection stations, as well as operated portable mini safety inspection lanes which resulted in the inspection of 2,331 light trucks and cars.

A total of 462 vehicles were removed from service for safety-related defects. The audits, investigations and inspection of motor vehicle inspection stations, commercial vehicles and passenger and light truck vehicles, resulted in a total of 525 charges laid under the HTA.

Twenty highway carrier officers conducted a total of 108,265 inspections at five permanent truck inspection stations, four audit truck inspection stations and eight patrol areas. A total of 3,854 reports in suspected violations were completed, with 3,009 resulting in court action.

One motor vehicle licence issuing office maintained by two ministry employees in North Bay, conducted 42,419 transactions.

The supervisor, motor vehicle licensing agents, conducted 38 audits. As well three new agents were trained in the vehicle registration system. The supervisor also conducted 12 investigations, relating to public complaints and agent concerns.

Northwestern Region

Construction Office

During the past year, work continued on stages two and three of the Kenora by-pass. On Highway 11 east of Fort Frances, a major resurfacing project, incorporating recycled asphalt, was completed. Work was completed on a structure spanning the English River on Highway 105. This structure eliminated the use of the hydro dam to carry traffic. The reconstruction of Highway 590 from Highway 588 northerly 9.8 km was completed, which resulted in reducing several steep grades. Meanwhile, work continued on the Bending Lake Road which, upon completion, will link Atikokan with Highway 17 west of Ignace.

In the Sault Ste. Marie area, major grading projects commenced on Highways 631, 532 and 556. The new structure over the Goulais River on Highway 532 was completed.

Engineering and Right-of-Way Office

During the 1984-85 fiscal year, Northwestern Region's engineering and right-of-way office delivered contracts for approximately $40 million worth of construction. The work comprised 16.6 km of new construction, 107.1 km of reconstruction, and 49.3 km of resurfacing for a total of 173 km. The program included two new structures and rehabilitation of 11 others.

Staff also provided technical advice during construction of ministry contracts, as well as to municipalities throughout the region.

Precontract engineering activities were carried out on a scheduled basis in support of future construction programs.

Access Roads Office

Summer and winter maintenance was cost-shared with main user companies on 293 km of industrial roads and 69 km of tertiary roads. In addition, administration and control took place over 478 km of recoverable access road maintenance and nine access road construction projects.

Municipal

During the year, 70 municipalities and 11 Indian Reserves received regular subsidies amounting to $16.9 million. Staff undertook 10 connecting link projects at a cost of $.9 million, and one development road project totalling $500,000. Some $3 million was provided to 116 local roads boards, eight statute labour boards, 34 Indian Reserves (11 in the remote north), and other informally organized groups involved with public roads outside MTC's jurisdiction.

Maintenance

Routine summer and winter maintenance was performed over 5,800 km of King's, secondary and tertiary highways. In addition, capital maintenance projects, including bridge and culvert repairs, prime and surface treatment and maintenance crushed gravel were undertaken.

Remote Northern Transportation Office Construction Program

New Airports

Kasabonika — construction 100 per cent complete;
Cat Lake — construction 70 per cent complete;
Muskrat Dam — purchased equipment and moved in;
Ogoki — equipment and partial material purchased, moved in; and,
Kingfisher — partial equipment purchased.

Total value $1,609,700

Existing Airports Upgrading

Various activities carried out for upgrading purposes at 11 airports. Activities such as:
— runway restoration;
— winter gravel hauls;
— security fence;
— water wells;
— access roads;
— runway lights; and,
— buildings.

Total value 466,600
Grand total value 2,076,300

Maintenance

Routine summer and winter maintenance was performed at 20 remote airports.

Grand total value 2,661,400

Reserve Roads Program

Carried out reserve road work at five remote settlements.

Grand total value 2,696,200
MTC Share 34,800

Drivers and Vehicles Office

Vehicle Inspection

Section staff completed 4,025 mechanical fitness inspections on commercial motor vehicles. In addition, 2,868 vehicles were checked at safety lanes held throughout the region. There were 801 inspections performed on school buses.

Highway Carrier

Staff checked 82,853 commercial vehicles, resulting in 3,230 charges being laid.

Driver Examination and Driver Control

Staff conducted 19,216 pre-test examinations and 10,360 road tests for driver's licence applications. The regional driver improvement councillor conducted 1,031 demerit point interviews and eight medical hearings.

Licence Issuing

Office staff processed 54,709 transactions. In addition, 30 agents processed vehicle transactions throughout the region.

Engineering and Construction

Highway Engineering Division

Engineering Materials Office

Foundations Design Section

Foundation investigations were carried out and the appropriate reports for foundations design and construction were prepared on a total of 74 structure and earth/rock work projects. Of these, 53 were done by in-house staff, and 21 by geotechnical consultants working under staff direction. In addition, 62 foundation reports for inclusion in construction contracts were prepared. Preliminary and final foundation design drawings were reviewed for 79 projects scheduled for construction in the next two years. Specialist advice and service was provided to MTC, municipal and certain other agencies on all aspects of foundations design and construction. This included some 22 MTC and municipal construction problems where site inspection by senior staff was necessary to provide recommendations for immediate remedial action. Such projects included embankment and other earthwork failures, culvert and tunnel dewatering problems.

The foregoing includes 22 foundations investigations for the GO-ALRT system of which 15 were conducted by consultants working under the direction of the section and the remainder by in-house staff. Foundation feasibility studies were carried out on the Oakville-Hamilton and northern system projects.

Eleven different instrumentation projects were monitored to determine settlements due to rock fill compressibility and consolidation of compressible subsoil. Also, a detailed instrumentation project was in progress to monitor properties of the geogrid installed as a soil reinforcement system on an embankment slope at a gradiant of one horizontal in one vertical.

Chemicals Section

Staff continued its activities related to the maintenance and updating of the designated sources list of materials used in highway construction and maintenance operations; the provision of expertise (advice, trouble shooting) and evaluation/testing/inspection services for all regions and various head office units; the review of the policies and procedures for structural maintenance painting and provided the technical input for the new MTC Forms 911 and 912 that cover the coating of existing and new structural steel.

Technical reports were published on: an evaluation of polyurethane coating systems for structural steel; an evaluation of new formulations of non-coning traffic paints; technical data on current MTC approved structural coating system.

Personnel completed an evaluation of currently available engineering grade reflective sign sheetings and a comparison study of coated versus non-coated (galvanized) road safety barrier panels used by International Barrier Corp.

Concrete Section

Staff continued to play a major role in the bridge rehabilitation sub-program through reviews of regional procedures, provision of technical assistance to regional staff, participation in various MTC committees, and development of rehabilitation techniques. Development projects were completed dealing with latex modified shotcrete, concrete repair materials and concrete sealants.

A draft performance specification for concrete strength has been prepared with the help of an industry task force from the Ontario Road Builders' Association and the Ready Mixed Concrete Association of Ontario. It will be used on two trial contracts in 1985. Programs to promote concrete mix design by the industry and increased use of the private sector for concrete field testing were continued and expanded.

The durability of new concrete continued to be a major concern. A project was started to compare the relative strength and salt scaling resistance of various cements used in Ontario. Testing of aggregates was continued to identify sources which might cause disruption of concrete by alkali-aggregate reaction.

Staff was heavily involved in testing bridge expansion joints and bearings. Staff continued to participate with the structural office in the development and specification of these products.

Soils and Aggregates Section

The computerization of the mineral aggregate inventory was virtually completed. During the next fiscal year it will be possible to issue aggregate sources lists for contracts using this system.

The ministry introduced lists of approved concrete aggregates in each region. Only approved aggregates can be used on contracts with concrete items. This policy was developed to prevent the use of alkali-reactive aggregates.

Sampling procedures for granular materials were reviewed by means of comparative field studies. New sampling procedures were prepared to allow the ministry to defer the implementation of universal road sampling, while ensuring adequate acceptance controls for granular materials are incorporated into our work.

An extensive study was undertaken on the problem of alkali-carbonate reaction found in concrete in eastern Ontario. As a result, substantial changes to the current acceptance specifications for aggregates susceptible to this problem were recommended. A new, rapid, chemical test for preliminary screening of these aggregates was also proposed.

A number of new laboratory test

procedures were developed and evaluated in the laboratories. These included a freeze-thaw test, a petrographic examination procedure for fine aggregate, and a point load strength for aggregates developed in co-operation with the research and development branch.

Bituminous Section

Support for program delivery activities was provided through mix design work, mix testing, asphalt materials testing and problem evaluation. Long term monitoring of recycled hot mix was an ongoing activity and a method developed for the determination of the recycling ratio and asphalt cement grade to produce acceptable recycle hot mixes.

Work continued on the development and implementation of performance specifications. An acceptance procedure with price adjustment for liquid asphalts, emulsified asphalts and emulsified asphalt primers was implemented. Tentative acceptance procedures were developed for bridge deck waterproofing thickness and hot mix asphalt cement content and gradation. Contractor mix sampling and pavement coring was specified on 13 contracts to provide new data on new sampling procedures. An acceptance procedure for pavement segregation was implemented.

In support of Ontario industry, a trial of new in-place pavement recycling equipment was organized and monitored, a trial section pavement reinforcement material built and monitored and lignosulphonate; a waste by-product of the pulp and paper industry was evaluated as a dust palliative. Trials of double surface treatment without prime which began in 1983 were continued with excellent success.

Highway Design Office

Staff was responsible for six major areas of highway design policy; highway standards; design automation; design evaluation and pavement; design development; design applications and drainage and hydrology.

Highway standards staff issued most of the Ontario provincial standards and the greatest part of the standards contracts were implemented. They were also responsible for the commencement, management and maintenance of the review and revision of various standards, with the formation of various specialty committees comprising members from the Municipal Engineers' Association, Ministry of the Environment, Consulting Engineers of Ontario, industry and MTC. Work continued on MTC standard special provisions and the monitoring of regional developed special provisions.

Design automation personnel continued to provide direct support to users in the regions, municipalities and design consultants with respect to engineering systems application. They also produced new user's instruction manuals for SDUPDATE and TAPS as well as revised versions of the SYS 050 (road design) operations manual and typical examples manual.

The majority of the CAD (design) project was completed with the integration of SYS 050 and MOSS road design systems and the acquisition of two-colour video terminals for quick display and interactive cross-section editing. Two CAD (drafting) pilot systems were acquired from ACDS Graphic Systems of Hull, Quebec, through a grant from the Technology Opportunity Fund.

Design evaluation and pavement staff processed and approved approximately 120 criteria for design projects.

A unit cost reporting system was introduced to provide senior management the ability to project design expenditures.

Trial projects undertaken as part of pavement management pilot study phase 2, were successfully completed. A comprehensive program to evaluate the portable universal roughness device, used for measuring pavement roughness was carried out. Pavement roughness measurements were conducted on 1,750 km of highways. Pavement skid measurements were carried out utilizing a brake force trailer at 175 sites on 1,760 km of highways. The number of tests was 11,700. A paper on performance prediction for pavement management was presented at the North American Pavement Management Conference.

A total of 65 municipal structure designs were reviewed for hydraulic and hydrological suitability, and eight structures on King's Highways were investigated and reviewed for monitoring purposes.

Staff continued to provide expert advice and assistance to regional planning and design staff on highway design policy matters. The section established and chaired the guide rail review committee to review and update the policy and application of traffic barriers and energy attenuators in light of the shift to lighter vehicles.

A total of 31 noise barrier sites were analyzed and a further 50 were reprioritized. The first draft of the noise barrier design manual was completed.

Development of the Tender, Analysis and Payment System (TAPS) continued.

Design applications staff prepared new and revised contents for the geometric design standards manual and the contract design, estimating and documentation manual; provided continuing expertise in geometric and detail contract design; participated in the development of the tender analysis and payment system; provided detail guidelines and seminars on the implementation of Ontario provincial standards in MTC contracts; and lectured at the municipal road design course.

Drainage and hydrology staff issued the following material of the MTC drainage manual: introduction to highway sub-drainage; the second edition of design flood estimation for small watersheds and a revision package to hydraulic design of culverts. Training seminars on three chapters of the drainage manual were conducted in all the MTC regional offices. Improvements to five drainage design programs were completed with the co-operation of the computer systems branch.

Environmental Office

Staff was responsible for the development and co-ordination of natural and cultural environmental policy, procedures and guidelines for the ministry's programs and agencies.

Interpretation and clarification relative to identified environmental policy and technical matters were provided to the regional planning and design sections, municipal office, air office, maintenance branch, communications division, Toronto Area Transit Operating Authority, GO-ALRT, and the Urban Transportation Development Corporation.

Monitoring of the effectiveness of developed internal policies and procedures for the ministry's one-stage environmental assessment report approach, as opposed to the former two-stage submission process, was initiated.

The new provincial highways program class environmental assessment document submitted to the minister of the environment for acceptance and approval, pursuant to the Environmental Assessment Act, in the previous fiscal year, was amended to address concern identified during the

review process. An exemption order was prepared and approved to extend the existing class environmental assessment process until the new document receives approval to ensure the ministry's construction program was not delayed.

Work continued on the preparation of environmental technical guidelines and policy. The factor areas of surface water, fisheries and aquatic biota and socio-economics were initiated for future incorporation into an environmental reference document for use in highway program areas. The surface water and fisheries and aquatic biota guidelines will be completed early in the next fiscal year. For these and other environmental factors such as noise, groundwater, salt and heritage matters, staff provided expertise to internal ministry units and external agencies.

The office's technical development section continued the development of an environmental quality control program for MTC. Staff were also involved in the monitoring of contract packages, field inspection of construction and painting contracts, the preparation of environmental specifications, an assessment of the environmental implications of the ministry's maintenance operations and the provision of presentations of environmental considerations to construction and maintenance staff.

Staff also co-ordinated the review of numerous environmental reports of other government agencies and the private sector to ensure that adequate attention was given to ministry policy and programs.

Surveys and Plans Office

Section staff continued the development of policy and procedures for automated survey systems for engineering applications. Three "total station" systems were acquired — one in each of the southern regions. Training programs were progressing with respect to field procedures and the processing of digital data for highway design purposes.

Control surveys established and evaluated 528 horizontal control monuments on the Ontario co-ordinate system; 123 horizontal control stations were established for construction; 164 precise bench marks on geodetic datum were established and added to the vertical control system.

The legal documentation group examined 830 legal plans and 822 km of highway were designated as controlled access. The total is now 8,356 km. Staff training continued in surveying and drafting with four regional staff successfully passing qualifying exams.

The photogrammetry and remote sensing section was responsible for photogrammetric plans, cross-sections, terrain models, mosaics and remote sensing development projects. During the past year, 635 km of aerial photography was flown at various scales by contractors for nine mapping and three non-mapping projects. With respect to engineering plans, the section delivered 108 plans as follows:

- medium scale (1:2000); 6 plans — in-house;
- large scale (1:1000 and 1:500); 68 plans in-house and 34 plans by private companies; and,
- 11 cross-section projects completed in-house.

Remote sensing staff produced 1,415 m^2 of mosaics and related products and 1,331 requests for image library services were processed. They also prepared another report in the series related to environmental surveillance.

The cartography section completed three major mapping projects during the past year viz: two of the Ontario Transportation Map Series (i) Map #5 — South-Central Ontario, (ii) Map 8 — Eastern Ontario, and (iii) the wall maps for southern and northern Ontario.

They also completed 81 requests for cartographic services resulting in 240 new base maps and 180 base film duplicates. There were five base film sale agreements.

Structural Office

Last year, only 17 new bridge designs were required, down from 25. All except two were designed in-house.

With the completion of construction of the new Burlington Bay James N. Allan Skyway well ahead of schedule, plans for the rehabilitation of the old structure were brought swiftly to completion. This involved a thorough examination and analysis of every structural member. Future contract work will include replacement of the entire concrete deck and railings and strengthening of a number of structural steel members.

The work load in other respects remained much the same. But the decline in design work permitted a 7 per cent staff reduction and an increased effort in the areas of structural maintenance and management. The first edition of the new Ontario structural inspection manual was issued and is used for all ministry structures.

Significant progress was achieved in planning the merging of several structural data banks used by various MTC branches and the inclusion of the structural inspection data in the resulting computer operated data base. This will provide a more highly organized and up-to-date method of handling bridge maintenance and management data than exists elsewhere.

The number of new municipal bridge designs checked was 187, very close to last year's figure. Other municipal approvals work included 121 culvert designs, review of 194 load-limit bylaws and 96 field inspections. Rehabilitation was a major part of the work and included two stone arch "heritage" structures and over 40 major repairs.

In developing the Ontario modular bridge analysis system (OMBAS), needed to facilitate full adoption of the Ontario Highway Bridge Design Code for municipal projects, some schedule slip proved to be unavoidable, yet work is now proceeding satisfactorily and the current "code" edition was used successfully for a year on ministry projects.

Staff received awards of excellence from the Prestressed Concrete Institute and the Post-tensioning Institute for the design of the Twelve Mile Creek Bridges on Hwy. 406 at St. Catharines.

Research and Development Branch

Branch staff continued to serve as a resource to the ministry, undertaking projects in co-operation with, and on behalf of, clients requesting services and expertise. The traditional association with Ontario consultants and universities was maintained under the Ontario joint transportation and communications research program (OJT&CRP).

On the national and international level, staff were asked to participate in conferences and joint projects with many other jurisdictions, often under the auspices of the Transportation Research Board or the Roads and Transportation Association of Canada (RTAC). Of particular interest, many papers and presentations were prepared for the mission to Saudi Arabia outlining our activities in such fields as pavement management, bridge research and vehicle weight control.

Personnel also received technical and research missions from the U.S., Switzerland, Taiwan, Finland, Great Britain, Japan, Australia and West Germany.

Pavement Research

Work was begun to collect data on the effects of heavy vehicles on pavements. This was part of MTC's contribution to development of uniform standards for vehicle weights and dimensions across Canada — an RTAC project. Data acquisition equipment was obtained and strain measuring instruments installed in pavements on Hwy. 7, Peterborough, and Hwy. 403, Brantford.

Researchers at University of Toronto completed the first phase of the OJT&CRP project on stabilizing dispersions of polyethylene in asphalt cement. Results were encouraging. Industry was interested and patents may be possible.

At the University of Waterloo, progress continued towards development of a system for automated detection of pavement distresses based on image processing technology. The edge detection algorithm software developed by the U of W appeared to be successfully detecting transverse and longitudinal cracking.

Under a Canada/Japan agreement for science and technology consultations, staff participated in a workshop on paving in cold areas at Tsukuba Science City, Japan, and presented Ontario's experience. Also, papers on performance prediction models were presented to the North American Pavement Management Conference in Toronto.

Materials and Engineering System

Work continued on the use of cathodic protection to conserve and increase the life-span of bridge structures. Much development work focused on the Burlington Skyway where eight such systems were installed and instrumented to monitor corrosion activity. A second test site was constructed at the Leslie St. bridge (Hwy. 401, Toronto) to field test further improvements in corrosion protection technology. Research on the corrosion of rebars continued at the Brampton test site where portions of the old Appleby Line overpass bridge were subjected to experiments and closely monitored. As well, several projects were underway at Ontario universities in support of this program.

Increasing awareness of the effects of de-icing salt on the highway infrastructure and the environment was reflected in several areas of activity:

- A study of the potential of CMA (calcium magnesium acetate) as a feasible substitute for de-icing salt showed mixed results. The material seemed effective in some conditions, not in others. Under present manufacturing conditions, CMA is much more expensive than salt. CMA seems to have a much lower potential for environment damage and corrosion but all of the data was not in. A laboratory study was carried out to study the corrosion effects of CMA on mild steel rebars.
- In co-operation with the Ministry of Agriculture and Food, a study was begun to determine the effectiveness of special sprays to protect fruit tree buds from air-borne salt spray from adjacent highways.
- A long-term study to measure the rate of corrosion in weathering steel bridges was initiated.
- Papers were presented to a number of technical societies and several reports issued on salt and corrosion-related matters. These included the remaining volumes of the Bridge Deck Rehabilitation Manual and one called "Sprinkle Lightly — Salt and Alternatives for Highway De-icing" which outlined the current state of controlled use of road salt. The latter report was sent to municipal officials across Ontario.

Other activity included studies of geotextiles to stabilize embankments, snow drifting control, and improved drainage design for bridge decks and highways.

Structural Research

Staff continued an active program of bridge testing to ensure the viability and strength of Ontario's highway bridge structures. Among those tested were across the Ausable and Conestoga Rivers, the Dunlop St. Bridge on Hwy. 400 at Barrie, and the Stephenson Bridge near Huntsville. Monitoring of special structures also continued. Of particular interest was the world's largest span soil-steel bridge, under construction on a county road near Guelph.

Staff participated in the Ontario Bridge Code Seminar to brief Ontario consulting engineers on the philosophy and procedures inherent in the second edition of the Code. A first meeting of the code committee was held to define work needed to prepare for the next edition of the Code.

Reports issued during the year included several on specific bridges tested. More generally applicable studies reported included the "Simultaneous Presence of Vehicles" and the feasibility of partial prestressing of concrete. Others included the application of the MTC spine girder design to transit guideways, the feasibility of deck slabs with one layer of prestressing, evaluation of safety indices in bridges, and the feasibility of integral abutment bridges for use in Ontario.

Highway Operating Systems

Much effort was devoted to improving the understanding and application of the principles of engineering economics to ministry activities. Staff contributed to a review and analysis of the SELECTRA multi-criteria decision support program. Work also continued on network optimization in support of MTC's pavement management system. This involved developing a new demand/optimization model and related in-house studies on project level economy.

New projects begun included a study of methodology and procedures for allocating subsidy funds to municipalities; and a York University study of capital spending alternatives for road surfacing.

Expertise in engineering economy and design of highway appurtenances was applied to an evaluation of the first year's performance of an experimental installation on Hwy. 400 of a new steel safety barrier design developed by International Barrier Corp. It involved video monitoring of accidents throughout the year. Ministry offices with expertise in areas such as maintenance, traffic management and engineering materials aided in the study.

Staff made a presentation to the Transportation Research Board in Washington of our ILUM1 lighting design program. And work was begun on converting ILUM1 to a microcomputer environment. In addition, luminance measurements were made of 31 refurbished signs on behalf of the traffic management and engineering office to assess the cost-effectiveness of the greater use of non-reflective facings.

Two papers were presented to the Canadian Acoustical Association — "Noise Emission Levels for Vehicles In Ontario" and "Absorptive Materials for Noise Barriers in Ontario." A revised version of the STAMINA 2.0 computer program for noise prediction was implemented featuring improved output, file handling and error messages.

Traffic Systems

Municipal traffic control system demonstration projects in Brantford, Waterloo, and Durham were completed. Although the final report was still in preparation, it was clear that traffic flow has generally improved and motorists experience reduced delays. The procedures and computer hardware and software developed for these demonstrations have great export potential.

Staff conducted a seminar on freeway traffic and freeway corridor traffic simulation models. A new project, "A Review of Corridor Traffic Models," was begun at the University of Waterloo. Staff also participated in a three-day RTAC seminar on development of new procedures for two-lane rural highway traffic prediction, control, and determination of user benefits.

A draft overview study of artificial intelligence and its potential for application to MTC activities was completed. Possible applications included security control and obstacle detection for automated transit systems. Also, a final report was received for CNCP Telecommunications on laser communications field trials. This has great potential for urban traffic control systems which have a large demand for timely information on real-world, real-time events.

In a more down-to-earth field of endeavour, a staff paper on "Pedestrian Risk Taking" was accepted for publication during the proceedings of the seminar on risk research held at University of Waterloo.

Technology Applications

The group objective was to improve the implementation of research findings and new techniques into ministry practice. Systems under development included a functioning model of a centralized, mainframe-based information system called TIES (technology information exchange system).

The first application modelled a library of information on new transportation-related products. In preparation for full implementation, the group acted as a clearing house, actively obtaining and exchanging information on new products and materials as a service to both MTC and private sector manufacturers who feel their products could improve the efficiency and effectiveness of ministry operations. Other candidates for TIES include the designated sources manual, and other cross-referenced information.

Finally, group staff acquired a technical publishing unit as a result of organizational change in the transportation technology and energy branch. For this report, activities of the Technical Publishing group were reported under TT&E branch.

Contract Management Office

Staff were responsible for the development of new policies and procedures related to contract management, quality assurance, manpower management and staff training required for MTC construction activities.

The major thrust for these policy matters included:

— development of performance specifications;
— monitoring contract administration and payment procedures; and,
— contract document review process.

Staff were responsible for the preparation of final tendering documents for 227 contracts, and providing the official interpretation and clarification to contractors during the bidding stage.

Verification of quantities supporting final MTC payments to contractors by the regions was carried out on 195 capital contracts.

Estimating and Engineering Claims

Staff (36) prepared the ministry's official cost estimate on 284 contracts having a tender value of $243,586,911.27. Recommendations for award were made to senior ministry officials on 279 contracts and non-award in five.

They assisted ministry regions by providing construction cost comparisons to assure cost effective highway designs.

As well, personnel provided technical input to internal committees/task forces and co-operated with consultants and governmental agencies both provincial and federal on construction cost-related matters.

They also acknowledged and analysed all major engineering claims submitted by contractors against capital and maintenance contracts; prepared settlement recommendations for the deputy minister's approval.

And, personnel monitored and assisted regional directors in the resolving of claims within regional authority; supplied engineering claims expertise to ministry, municipalities, consultants and contractors on request.

Property Office

Policy and procedures for appraisal techniques, acquisition of property, the rental, management and disposal of surplus lands and the quasi-legal aspects of the purchase of real estate in the title-searching and conveyancing functions were developed by office staff.

Using these policies and procedures, staff in five regional offices negotiated 879 amicable property settlements. The ministry expropriated 209 properties to obtain title for land required to permit contracts to proceed. Appraisals and acquisition of properties required for the GO-ALRT project were underway.

MTC spent $10,342,652 in payment of compensation while acquiring title to lands required for highway projects. An additional $207,005 was paid to owners affected by expressways, subject to cost-sharing agreements between the ministry and municipalities involved.

Revenue of $5,355,636 from the sale of surplus lands and $643,689 from leasing properties were received.

Personnel carried out six periodic audits of the regional property sections to ensure adherence to proper policies

and procedures and, in addition, provided technical advice and expertise when requested by regional staff.

The staff has responsibility for the resolution of all outstanding claims which may proceed to the Ontario Municipal Board, Land Compensation Office for arbitration. The ongoing caseload involved about 70 properties with decisions handed down, or negotiated settlements procured, in about 25 cases during the 1984-85 fiscal year.

Another major responsibility was to monitor and review property appraisals carried out by regional staff and fee appraisers. This involved some 132 desk reviews of which 14 were arbitration appraisals. An additional 42 field reviews were carried out, of which 10 were regional requests, 22 were reviews of staff appraisal reports, the balance of 10 were arbitration reviews.

Through the office's training program, a four-day agents' seminar was held. And 41 staff participated from both this ministry and Ministry of Government Services. In addition, an intermediate agents' course was provided for three agents who were successful in passing the qualifying examination.

Highway Operations and Maintenance

Maintenance Branch

The branch was reorganized in 1984 into the maintenance planning and maintenance operations offices, the maintenance human resources planning and development unit and signs and buildings permits section. The mandate is to provide functional management of the ministry's highway maintenance activities to ensure the continued preservation and operational viability of the provincial highway system. This is carried out by establishing policies and standards, allocating available funds and exercising functional direction over the delivery of the maintenance activity.

Maintenance Planning Office

This office comprises the maintenance management and the budget and allocation sections, plus a planning and analysis unit.

The first sustained the computerized maintenance management information system which provided maintenance managers with support in running the ministry's maintenance activities.

Section staff continued to implement changes to the system based on the recommendations made following an extensive review of the system for generating district maintenance work plans. Implementation of a maintenance daily work report was undertaken, replacing the bi-weekly report in an effort to decrease peaks in the administrative workload. A review of the potential use of hand-held computers for remote data entry was made with a view to conducting a pilot study in the coming year. Personnel conducted training programs with regional and district staff to help in the implementation of system changes.

Budget and allocation section personnel were responsible for developing and recommending to branch and division management, the appropriate division of the sub-program's funds among various regions and head office units.

Planning and analysis unit staff played a major role in co-ordinating the branch contribution to MTC's strategic planning process.

Other activities by office staff included leadership of a task force to develop policy guidelines for privatization in maintenance; and participation in modifying the management by results process.

Maintenance Operations Office

This office consists of four specialized units: landscape planning; landscape operations; special maintenance services, and maintenance operations analysis.

Maintenance Operations staff established and monitored operational policy and standards, provided technical expertise and training, and led and co-ordinated operational and administrative improvements.

During the past year, office personnel took a more active role. They increased its membership and participation on various committees to emphasize maintenance concerns and priorities relative to design and application of specifications, evaluation of new products, techniques and government-wide issues.

Support and contribution to the pavement management system continued. Personnel developed an evaluation process for districts to use in monitoring crack-sealing effectiveness.

Extensive testing was made of durable pavement marking material especially for application on high-volume intersections.

Staff was active on a committee involved in developing a weather forecasting system to improve assignment and management of winter maintenance operations.

A research study was initiated through the University of Guelph to evaluate the ministry's tree-planting techniques and maintenance procedures and recommend alterations to the planting specifications. This study will continue for the next four years.

Staff were instrumental in modifying a snowplow marker for concrete median barrier systems — more visible to motorists and requiring reduced maintenance.

They also provided input to projects on the capital construction program by producing inventory assessment and interpretation of vegetative and aesthetic factors during preliminary and detail design stages. Design advice was provided on some 90 projects.

Staff completed 25 landscape plans for tree and shrub planting on newly constructed routes, including planting designs to enhance noise barrier locations and freeway interchanges.

Equipment resources were reviewed, enabling districts and head office to better plan future needs and acquisitions.

Office staff continued to monitor and evaluate the initiative of one-person snowplowing — a concept which has increased over the past two years.

A new method of applying reflectorized glass beads to roadway paint was tested. Evaluations will take place over a specified time period to

determine the effectiveness and the product's durability.

Unusual soil conditions were encountered on a northern highway, which made reclamation of the right-of-way using conventional grasses impossible. Through soil testing and evaluation, a site-specific seed mixture was prepared and applied. The results were positive; the highway right-of-way was re-vegetated, reducing the possibility of erosion.

In response to MTC's corporate direction to privatize various maintenance activities, a specification was developed for use by contractors in applying herbicides to highway rights-of-way. Four contracts utilizing this specification were awarded and the operations will be monitored to assess their practicality and success.

Winter maintenance seminars were presented to some 500 staff to ensure awareness of ministry policies and practices. Approximately 35 candidates from the various MTC district offices attended a landscape technology seminar, designed to inform them of the current state of the art in the landscape operations field. In addition, a week-long course in roadside vegetation management was held for the benefit of municipal employees from across the province.

At the request of the Ontario Vegetation Management Association, staff organized a field demonstration for over 120 people to show the various types of spray equipment utilized by MTC for weed or brush control.

Staff also improved communications with the nursery supply and contracting industry by meeting with selected firms and the provincial trade association to discuss nursery supply and ministry landscape specifications.

Other projects included preparation of information material for presentation at various highway seminars both national and international; providing the GO-ALRT program with a review and monitoring function of landscape architectural issues; assisting the Ministry of Natural Resources in a rationalization of rest picnic information sites on provincial highways; and participation on the nuclear emergency planning commiteee.

Maintenance Human Resources Planning & Development Unit

Unit staff planned, guided, directed and evaluated the human resources element of the ministry's maintenance sub-program. They were also responsible for co-ordinating and providing direction in the development of training programs for 2,700 maintenance staff.

A human resources long range plan was developed for the maintenance sub-program. It identified staff training needs in contract management, employee labour relations and computer applications.

During 1984, personnel assisted the Operations Office in providing some 500 maintenance staff, including 50 staff from municipalities in the Hamilton area, with winter training seminars.

Signs & Buildings Permits Section

Section staff provided policy, procedural and technical expertise to senior management, the five regions and 18 districts.

The number of permits issued in all areas, including building and land use, access, field advertising signing, location signing, encroachments, etc., increased over 1983. New building permits issued for 1984 had a construction value of $434,536,570, almost double last year's value.

During 1984, Signs and Buildings Permits staff developed and tested a new computerized recording system for encroachments permits and agreements. It will also provide the annual billings for the 18 districts.

The issue of utility relocation cost-sharing was addressed and an acceptable framework for cost-sharing was developed to be implemented in 1985.

Personnel continued to review the wide range of new high tech advertising devices and sign types. Contact was made with many Ontario organizations to ensure that MTC's commercial sign policy reflected the needs of the users as well as sign manufacturers, while protecting the highways' operating integrity and natural aesthetics.

Finally, the changeover from the old black-and-white recreational resort signs to the new more pleasing chocolate and white sign assemblies was successfully completed.

Traffic Management and Engineering Office

Staff activities were directed toward maximizing the safe and efficient use of the highway for the travelling public, through the development and application of appropriate policies and standards, the development of technical leadership and provision of advice to regional and district staff, municipalities, other highway authorities, and the legal and justice community.

Together with the traditional engineering function of traffic analysis, signing, signals, electrical design and maintenance and accident data management, personnel placed a significant emphasis on the development of advanced technology applications through freeway traffic management and electronic control systems projects.

Work on the freeway traffic management systems (FTMS) area continued to be shared with the private sector, through the use of engineering consultants and contractors. This partnership promoted the development of new Canadian high-tech products and developed expertise in the private sector, which will then become well positioned to undertake similar work across Canada and worldwide. The operation and development of the existing eastbound QEW system in Mississauga continued with the successful introduction of a Canadian made system 170 controller for ramp metering purposes. Construction also began on the FTMS for the Burlington Bay James N. Allan Skyway.

The FTMS used a new fibre optics communications subsystem, now under development. A Canadian contractor was being selected to undertake the design, manufacture and installation of this high tech component.

Preliminary design for the Highway 401 system was presented to the public, who expressed strong support for the project at a series of public information centres. Work also continued on the preliminary design for the Ottawa Queensway FTMS.

The conversion of SSTOP, a Canadian traffic signal network optimization program for use on a microcomputer, was completed early in the year. Since then it has been distributed to a number of road authorities, consultants and universities both in Canada and the U.S. A resultant new activity was the considerable technical support and consulting advice provided to the SSTOP users, especially during their introduction.

A reference manual for all aspects of traffic signal operations went into preparation.

A number of initiatives were undertaken concerning the Canadian

built system 170 traffic controller, including hardware modifications to reduce lightning damage, software modifications to permit linking with the Mississauga traffic control system; and a maintenance manual and training program to assist field staff in the operation of the equipment. Additional software development was completed to utilize the 170 system as the field processor for the freeway traffic management system.

Traffic control system projects were underway in Windsor, Burlington, Mississauga, Brampton, London and St. Catharines, following the completion of feasibility studies subsidized by the ministry. Communications studies were completed in Metro Toronto and the Region of Waterloo.

New standards and specifications for high-mast lighting were completed and a maintenance manual was under development. A permanent test facility for lighting equipment was designed for 1985 installation at the John Rhodes Centre.

Electrical design services were provided for numerous projects installed by MTC staff or contractors in all regions except central.

A major review of the highway signing policy was undertaken in two parts: part I, highway and municipality signing was completed, resulting in improved signing for municipalities and road intersections to be implemented in 1985; part II, tourism signing was initiated.

Some special signing and new signing policy and standards projects were completed (or under development), including signs for the Papal visit; Burlington Bay James N. Allan Skyway; municipal police; intermediate airports; child restraint and others. Work on revisions to the manual of uniform traffic control devices was nearing completion.

Traffic devices development activity included testing or evaluation of raised pavement markers; microprocessor based roadside data gathering equipment, IBC median barriers and guiderails. Studies were initiated to review a number of issues including standards for pedestrian crossovers, effectiveness of paved shoulders and passing lanes, survey of seat belt and child restraint usage, and policies on the use of highways for special activities such as film making and bicycle races.

Financial and technical assistance was provided to municipalities for traffic operations studies in Simcoe, Trenton, Smith's Falls, Trenton and Cambridge. Studies related to the installation or upgrading of computerized traffic control systems included Windsor, Regional Municipality of Niagara, Sault Ste. Marie, Metro Toronto and Cambridge. A review of the traffic operations studies program was begun with a view to updating the policies and procedures for initiating and conducting these studies.

Work was also initiated on a number of computer systems, including the accident data system, the potential for a regional computer development, and the automation of 14 permanent counting stations for the collection and processing of highway traffic data.

Equipment Engineering Office

This office consisted of a new equipment, fleet management, equipment design and development and records and administration sections plus the government garage and fleet service at Queen's Park, and head office equipment garage in Downsview.

Staff of the equipment engineering office were responsible for developing policies and supplying training for the operation, selection and repair of MTC vehicles and road maintenance equipment.

They supplied equipment to the districts and monitored a computerized fleet management system to ensure control and economy in fleet operations. Personnel wrote policy manuals and provided technical advice, technological guidance, training courses, design and development assistance, and miscellaneous services to the 18 district offices to help them do their jobs more effectively and efficiently.

New Equipment Section

Staff purchased and distributed the required fleet mix according to the 1984-85 plan, within budget. After careful scrutiny of the need and, in light of budget constraints, equipment to the value of $7.2 million was procured.

This capital investment was comprised of 24 cars, 186 small trucks, 50 large trucks, 11 loaders, 40 sanders and various other pieces of equipment, such as trailers, tractors, wood chippers, aerial devices, rollers, catch basin cleaners, etc.

Staff also inspected this equipment for compliance with MTC specifications and examined equipment designated for replacement. Old equipment was re-distributed, scrapped or sold by auction. They continued to evaluate new types of equipment, respond to ad hoc visits from suppliers and attend trade shows and field trials, to stay abreast of the market.

Fleet Management Section

Some 16,500 pieces of equipment were inventoried on the computerized equipment management system which recorded fleet usage and operating costs and provided management reports. Policies governing the operation and maintenance of the fleet and the district garages were established and monitored.

Personnel updated the training program for ministry drivers and equipment operators on the reversing of vehicles. Safe driving was supported and promoted through the provincial safe driving roadeo, successfully organized last fall at the Downsview complex. Nineteen winners from the district roadeos qualified for the event. Bob Vernon (Toronto district) was winner for the third consecutive year, a unique achievement in the history of the roadeo.

Three rental rate schedules to charge out the use of municipal, district and head office equipment were updated and distributed. Advice on them was provided to internal ministry units and municipalities. New policies and procedures on licensing and training of vehicle operators, equipment reversing and rustproofing the fleet were established. Technical staff continued to develop programs and conduct training courses for MTC garage supervisory staff, garage tradesmen, equipment operators and municipal roads staff.

Design and Development Section

Designing and building special equipment was the responsibility of this section comprised of an engineering and drafting group in the office and a machine shop for manufacturing or modifying equipment.

The major project last year was the construction of two large, highway lane-marking machines, known as zonestripers, to be used at Burlington and Owen Sound districts. They were added to MTC's 19-unit fleet throughout the province, all of which were built in Downsview.

Each of the current generation machines evolved to apply the latest lane-marking paints at high levels of productivity. They were built on a tandem axle, diesel powered, truck chassis with a gross weight of about 50,000 pounds. Carrying capacity was

1,000 gallons of paint and 4,000 pounds of reflective glass beads blown into the freshly applied paint to provide night-time visibility.

A furnace, regulated by automatic controls, heats paint to about 150°F just before it is sprayed on the road. The specially formulated paints were designed to form a strong bond and dry quickly so they won't be smeared and tracked by vehicle tires.

Since the machine can paint up to three lines at a time on both sides of the machine, two operators were required, in addition to the driver. They were located in the pressurized, air-conditioned cabs in the rear of the machine, just above the paint and bead-gun carriages.

All zonestripers were followed by a well-marked backup vehicle. One of these may have what appears to be 20 oil drums suspended behind the tailgate. They are crash attenuators, also built in the equipment office machine shop, designed to absorb the impact of any rear-end collisions.

Another interesting project was the designing of a tunnel washing machine to clean tunnels under the Welland Canal, the largest of which is half a mile long and four lanes wide. It was estimated there will be substantial labour savings over current methods. Energy savings will be realized because less lighting will be required in the tunnels when the walls are clean.

Records and Administration Section

Office automation was evident during the past year. Two Wang word processors, two terminals accessing the main-frame computer and an IBM personal computer were installed in this office to expedite data retrieval and manipulation for management studies speeding up the internal decision-making process. This micro-computer was recently used to add the vehicle licence plate numbers to each MTC vehicle on the equipment master file, and develop information for the ministry's fuel contingency plan.

EEO staff assumed full responsibility for the operation of the equipment management system from the computer systems branch. This resulted in a savings of approximately $25,000.

Improved staff productivity resulted from the utilization of the word processing systems to store information such as equipment specifications, rate schedules, task force reports, job specification and performance appraisals.

A micro-computer was procured for the equipment stores to provide a computerized inventory control system.

Head Office Equipment Garage

This unit supplied and maintained a fleet of 160 vehicles for head office and Central Region use. The fleet included such special vehicles as two-block trucks which carry 100 tons to test the strength of bridges; a unique aerial device which allows the workmen to inspect the underside of high bridges.

Last winter, before the start of each working day, section operators kept the parking lots and roads of the Downsview complex and Downsview OPP clear of snow.

Staff accepted, inspected and road tested new units of equipment, outfitted them with MTC numbers, and fire extinguishers and arranged delivery to the districts.

Government Garage (Queen's Park)

Equipment engineering staff assumed managerial responsibility for the government garage. Besides the chauffeur service they provide to clients at Queen's Park, they also supplied fuel and mechanical service to approximately 400 vehicles owned by other ministries and agencies.

This section employed 22 people, composed of six administrative personnel, one stockkeeper, three mechanics, two drivers, two garage attendants and eight chauffeurs, including the government garage's first full-time woman chauffeur.

Safety and Regulation

Transportation Regulation Operations Division

Coordinator of Resources Office

Personnel provided guidance and support for the management of financial and human resources within the safety and regulation program.

More specifically, financial staff were responsible for program budget preparation and monitoring expenditure, revenue collection, management reporting system developments and communicating with other MTC programs and government agencies. Human resources staff were responsible for assisting in daily staffing concerns, establishing program staffing policies and procedures, developing and maintaining the human resources long range plan and liaison with other ministry programs and government agencies.

Systems Improvement Office

Staff provided systems development and maintenance support services for all systems (both manual and computer) within the safety and regulation program. Major initiatives were undertaken in the following key areas:

- systems development and maintenance relative to the vehicle registration system with 350 agents on-line across the province and major head office components in both Downsview and Kingston;
- ongoing maintenance and developmental support relative to the driver system and accident reporting system to enhance efficiency and affect savings, wherever feasible;
- continuing development and support of a comprehensive program-wide management reporting system and associated work measurement activities; and,
- business systems development support to the trucking regulatory reform implementation project (TRRIP).

Ongoing support continued in the development and maintenance of policy/procedure manuals and internal/external forms across the entire program.

Compliance Branch

Promoting the regionalized delivery of a uniform and rational compliance program, branch staff were responsible for the carrier licensing and information office, office of special investigations, operational policy and standards office, weights and dimensions office and vehicle standards office.

The program was continually monitored to ensure consistency with governing legislation, policies, and procedures, provided coherent direction to enforcement officers with respect to compliance of economic regulatory control legislation and the Highway Traffic Act (HTA).

In addition, staff in conjunction with transportation regulation development aimed to ensure a program which reflects an awareness of Ontario's needs, relationships with other jurisdictions and the exchange of compliance information. Significant developments and new initiatives within the transportation industry were also reflected, aimed at responding to those factors which contributed to or were detrimental to the development of Ontario's transportation industry which influences the mobility of goods and people.

Education, co-operation and communication with both the regions and industry were continually under examination and developed toward an effective program.

Operational Policy and Standards Office

Staff's main function was to assist and promote a uniform application of motor carrier regulatory controls. Administrators and policy officers assisted in the development of new or amended legislation and the development and implementation of new motor vehicle and carrier programs. Examples included co-ordination of Ontario's strategy in the creation of a nationally uniform code for the transportation of dangerous goods and the fuel system inspection program for propane fueled vehicles.

Personnel also provided technical expertise and worked out operational procedures and standards to assist in interpreting ministry policies on regulatory issues. The research and development of operational policies and procedures were documented and distributed in the form of policy directives.

They also developed, co-ordinated and conducted training courses for MTC's enforcement field staff. Various information posters and pamphlets were produced and distributed as part of the awareness programs. This information was disseminated to various federal and provincial agencies, the trucking industry and local governments. Technical and program information was also provided to industry, the media, general public and ministry's enforcement staff.

Carrier Licensing and Information Office

Staff was responsible for the monitoring of Ontario Highway Transport Board (OHTB) certificates for compliance with the Public Commercial Vehicles and Public Vehicles Acts and Motor Vehicle Transport Act (Canada); the issuance of operating and vehicle licences associated with the board issued certificates; the issuing of special permits for the movement of over-dimensional vehicles and loads, licensing of motor vehicle inspection stations, the issuing of safety standard certificates, dump vehicle and bus inspection stickers and propane stickers.

During the last fiscal year, there were 4,955 board certificates, 4,086 public commercial and public vehicle operating licences, 72,321 vehicle licences and plates and 3,888 special permits issued. Licences were issued to 10,503 motor vehicle inspection stations and 22,665 mechanics were registered. In all, 1,124,774 safety standard certificates, 135,113 dump vehicle and bus inspection and 41,560 propane inspection stickers were issued.

Weights and Dimensions Office

Staff provided consulting service to ministry groups engaged in the preservation of the highway system by the review and approval of permit applications. This involved the proposed movement of vehicles and loads exceeding routine guidelines for weight and dimensions, and advisory service to industry groups wishing to take maximum advantage of the transportation facility.

They also assisted in the development of weight enforcement strategies as they applied to both system and equipment needs.

Trucking Regulatory Reform

Trucking regulation has been under intensive review in Ontario for several years. In 1983, a new direction in regulatory policy was recommended by a committee of representatives from the goods movement industries. Their recommendations were documented in the "Responsible Trucking" report.

The new approach was subsequently endorsed by government, and the 1984-85 period was dedicated to developing the legislation and administrative mechanisms which could implement the new approach. This involved extensive consultations by mail and through committees, specifically on the subjects of licence simplification, entry tests, competency tests, leasing, commercial vehicle operator registrations, rate regulation and OHTB powers. Significant progress has also been recorded in consultations through the CCMTA (Canadian Conference of Motor Transport Administrators) toward making regulation between Canadian jurisdictions more compatible.

A large project was completed, analyzing enforcement administration at MTC. This formed the foundation for procedures to administer a commercial vehicle operator registration system and co-ordinate enforcement activity. The framework for specifying new operating authorities was completed in 1984 and pre-writing the conversion of all operating authorities was commenced in the fall. The prewrite process was three-quarters complete by fiscal year end.

In December of 1984, a draft of the new Public Trucking Act was tabled in the Legislature for public comment.

Office of Special Investigations

Office staff is mandated to provide special investigations, carrier control and enforcement support services for the carrier subprogram. It did this by carrying out a program leadership function, and providing direct program delivery, in the above mentioned areas. It did this through its three sections as described below.

In its special investigations role, staff carried out complex and sensitive investigations as well as those referred to it by senior management and the regions. In addition, they conducted investigations in northern and northwestern Ontario and outside Ontario on behalf of the regional investigations units.

In its carrier control capacity, personnel was responsible for ensuring compliance pursuant to the PCV Act, the PVA, the Motor Vehicle Transport Act (Canada) and the HTA through means other than the court process; such as initiating operating authority referrals and vehicle registration and operating authority cancellation proceedings against 15 commercial vehicle operators.

In 1984, staff arranged for service of 709 summonses out of province related to prosecutions in Ontario. Co-ordinated regional and head office data also showed there were 2,331 charges pending before the courts.

MTC was faced with a multiplicity of changes in the compliance area, resulting from regulatory review and reform. Specifically, recommendations of the PCVA Review Committee, the Uffen Commission on Truck Safety, the Bus Committee, the influence of new Dangerous Goods legislation and the CVOR system, resulted in the need to examine the way the ministry delivered its compliance program, as it related to commercial vehicles operating in Ontario. Consequently, staff is in a transitional phase, pending implementation of new reforms. Personnel, actively involved in and greatly affected by regulatory review, has redefined its role and mandate, as a part of these proceedings.

Vehicle Standards Office

Personnel provided consulting service, to MTC and other ministries, police standards and performance. It also recommended and assisted in the development of legislation and regulations.

Staff took leading roles in the development of propane vehicle inspection regulations and a national standard for public motor vehicles used in the transportation of physically handicapped people. They also took an active part on the technical steering committee responsible for a $2.8 million national truck size and weight standardization project. In addition, they responded to a number of proposed new and amended federal standards affecting the manufacture of new motor vehicles.

Staff also assisted police in their investigation of a number of accidents involving heavy commercial vehicles, served as expert witnesses at the coroners' inquests and court trials, and responded to coroners' jury recommendations.

Transportation Regulation Development Branch

Safety Coordination and Development Office

Staff initiated and co-ordinated the development and implementation of a broad range of highway safety policies as well as providing consulting and support services to the Ontario Co-ordinator of Highway Safety.

Viewing seat belt and child restraint usage as a primary means of reducing the severity of trauma in motor vehicle accidents, staff co-ordinated a roadside seat belt and child restraint survey in May and June of 1984. The survey showed increased driver seat belt usage since the last roadside survey in 1981 (70 per cent compared to 60 per cent), a marked increase in seat belt usage by children, and a lesser increase in child safety seat usage. The misuse of child safety seats and the large proportion of infants travelling on adults' laps were problem areas revealed by the survey. Strategies to address these areas of concern are currently under development.

In the area of driver education, staff published and distributed a new textbook "Roadworthy — Becoming a Responsible Driver" for use in Ontario's secondary school driver education program. The new text and course curriculum will also be distributed to commercial driving schools throughout the province. In the area of driver improvement, staff continued to evaluate existing and proposed programs intended to improve driver motivation to drive responsibly, and were instrumental in convening a workshop to examine the concept of graduated licensing for young drivers.

During the past year, staff developed educational materials to encourage voluntary usage of headlights on a 24-

hour basis and co-ordinated the passage of provincial legislation extending the required usage of headlights by one hour at dawn and dusk.

Motorcycle accident casualties continued to be a serious concern with 20 per cent more fatalities in 1984 than in 1983. A breakdown of 1984 fatal motorcycle accident statistics showed contributing factors continued to be alcohol, non-usage of helmets, and speeding. A seminar planned for April 1985 was expected to assist the ministry in developing new strategies to alter this trend.

Viewing bicycle safety as an emerging concern for the 80's, staff conducted a multi-year in-depth analysis on Ontario's bicycle accident statistics and trends and participated in a working conference on "Cycling and the Law" with police, bicycle manufacturers, government officials and cyclists. Information gained from these activities will provide a foundation for future strategies and countermeasures to improve bicycle safety.

In 1984, a study of the content and format of the police motor vehicle accident report form was carried out to determine options for better meeting the needs of all users of accident data, including the police. Based on recommendations from the study, MTC's accident data system will be reviewed to maximize efficiency in meeting these needs.

Other activities included the establishment of government industry working groups to examine the issue of school bus safety and the operation of farm vehicles on highways. The problem of the drinking driver remained a serious one from the highway safety perspective and staff were extensively involved in working with other governments to develop and assess strategies in this area.

Bus Transportation Office

During the 1984-85 fiscal year, staff were responsible for the continuing government-industry-consumer bus committee deliberations. Thus, office personnel endeavoured to effect comprehensive and pragmatic policies towards a future regulatory structure for provincial intercity bus services.

Through the auspices of the bus committee, staff also examined a number of issues and options related to future public vehicle regulation — such as the separation of charters and line-runs, how public vehicle services should be regulated, economic deregulation of charters, and strengthening existing regulations. Consequently, the concept of reinforced linkage and cross subsidy between charters and regular routes was adopted for further consideration. The bus committee is now in a position to further develop this proposal for regulatory reform.

Personnel were also actively engaged in other significant policy issues, including examining whether subsidized urban transit properties should compete in the PV charter market and whether school bus operators should be exempt from the PV Act. Staff also participated in a review of the control that urban transit properties hold over sightseeing tours and charters within their designated municipal boundaries.

They also consulted directly with carriers contemplating major changes in services and or tariffs as well as dealing with the concerned public about those same changes.

As a member of the CCMTA's bus working group, staff were instrumental in developing intercity bus accessibility guidelines for disabled travellers.

In response to a chronic shortage of operational and financial data on the Ontario intercity bus industry, they initiated a joint effort with the OMCA, in order that useful and accurate information could be gathered to monitor and analyze the industry.

Personnel continued in their role of contact for carrier enquiries regarding issues of current concern to them. One major effort involved the administered prices program, which ensured that administered price increases conformed to established constraint criteria.

Staff reviewed safety concerns related to public transportation. One major initiative involved investigating the issue of overcrowding on transit buses to determine if any safety problems were arising.

Truck Transportation Office

In 1983, the PCVA review committee released its final report entitled "Responsible Trucking." Since that time, office staff and many others have worked towards the scheduled January 01/86 implementation date for regulatory reforms.

The trucking regulatory reform implementation project generated many assignments and studies. New legislation to replace the existing PCVA was developed and further legislation will be considered in the next legislative session.

This office continued to be involved in the development of recommendations contained in the 1983 final report of the Ontario Commission on Truck Safety by Dr. Uffen.

Additional reciprocity agreements were developed between Ontario and other jurisdictions to ease the movement of goods.

Licensing and Control Branch

The role of the Licensing and Control Branch was to enhance the safe and efficient movement of people and goods by regulating the qualifications and performance of drivers and vehicles. The latter was achieved by keeping accurate records of all drivers and vehicles, providing information and education on drivers and vehicles to the courts, law enforcement agencies, industry and general public. In addition, the branch was responsible for the collection and accounting of fees as established by regulation.

The branch is geographically split. All production-oriented functions, consisting of the following offices: licensing operations, financial and stock, field support and support services were located in Kingston under the management of the production operations office. All service support functions of licensing administration, operational policy, network support and driver improvement remained at the Downsview complex.

Licensing Administration Office

Staff was responsible for providing licence assistance services to the public respecting legislation, regulation, policies and procedures which support the following provincial programs: driver licensing, driver improvement, driver instructor licensing, snow vehicle operator licensing, snow vehicle licensing, highway vehicle licensing and off-road vehicle licensing.

In addition, they provided search services of driver and vehicle records for the public, enforcement agencies and the courts; issued licences to commercial motor vehicles governed under the Canadian Agreement on Vehicle Registration (CAVR) in its prorate issuing unit; and, in its Downsview issuing unit, issued standard vehicle registrations for passenger and commercial vehicles, and trailers.

Operational Policy Office

Staff were responsible for development and documentation of new operational policies and procedures; the evaluation and revision of current operational policies and procedures; the monitoring of field and head office operations to assure consistency of the administration of operational policies and procedures; and staff training to meet changes in policy and procedures.

Network Support Office

Personnel were responsible for technical support to on-line equipment users of the vehicle registration system (VRS) network; monitoring performance of vendor and government service organizations; testing and requisitioning new equipment; maintaining equipment inventory and reassignment control within the VRS network; facilitating the installation, de-installation and relocation of licence issuing offices and, providing input to policy development for the ministry on agent handling and business relations.

Additionally, they maintained financial control (budget) over all distributed computer hardware and communication lines cost for rental and service changes and authorized payments to vendors for extra work performed.

Driver Improvement Office

Staff were responsible for ensuring adherence to standards established for the licensing of drivers and monitoring drivers' post-licensing activities. This was accomplished through the activities of two sections: Driver Control and Medical Review.

Driver Control personnel handled the maintenance and administration of the demerit point and probationary driver systems and administration of licence suspensions and reinstatements related to driver behaviour and attitude.

Medical Review staff were responsible for monitoring drivers required to file periodic medical reports as a requirement to maintain their class under the classified driver licence system; and drivers identified as having medical conditions which made it unsafe for them to operate vehicles. They were also responsible for the administration of medical-related licence suspensions and reinstatements.

Both sections contributed to the maintenance of an accurate cumulative operating record of each Ontario driver.

They also provided administrative support to the public other than Toronto and regional offices in handling more complex driver control and medical enquiries.

Production Operations

Staff was responsible for ensuring the effective operation of the branch's Kingston-based office; providing direction to the Field Support, Licensing Operations, Financial Control and Stock Management and Support Services Offices.

They also provided centralized training, production control and administrative services.

All offices were fully functional in Kingston after relocation from Queen St. and Princess St. to Counter St. in the spring of 1985.

Licensing Operations

This office consists of the following three sections:

Renewal Processing which provided Ontario's motoring public with a mail-in service for both driver and vehicle renewals;

General Issuing which processed all driver related transactions generated by the driver examination centres; and provided a mail-in service for transfers, corrections, changes of address, replacements, requests for application, own choice plates and name changes.

Driver and Collision Record Input which processed driver conviction transactions and reports of all collisions occurring in the province.

Financial Control and Stock Management

This office consists of two sections:

Financial Control, which accounted for and consolidated all revenue received through driver and vehicle production related activities, administered the issuance of refunds for both driver and vehicle programs, monitored the collection of replacement funds for dishonoured cheques, and were custodians of the profile data base for all issuing offices and driver examination centres.

Stock Management, which provided a stock procurement, planning and delivery function for driver and vehicle stock, forms and material was also carried out.

Field Support

Staff provided licence issuers and driver examination centre personnel with a direct, central and singular communications link for the resolution of procedural, legislative and policy interpretation. They also interfaced with a technical support group to resolve systems hardware/software and network communications difficulties.

Personnel, through resource access control facility (RACF), controlled the access security to the on-line vehicle computer network.

Staff audited and monitored the daily financial reporting activity of both the driver/vehicle offices. The performance of driver/vehicle policies/procedures compliance was also monitored, ensuring the on-line and manual submissions were accurate.

They also provided administrative support to the driver/vehicle office, informing them of financial discrepancies in reporting and initiating corrective action for incorrect procedural methods.

They also gave guidance and assistance to those offices experiencing difficulties in transacting business through the on-line vehicle system.

Support Services Office

Staff met the needs of production operations in Kingston, providing large scale data entry services, mail distribution, microfilming and retrieval capabilities and word processing. They also attended to the secure disposal of scrapped vehicle licence plates and documents.

Photo Implementation Project

A special project group of four was set up toward the end of the 1984-85 fiscal year to begin the planning and development work necessary to implement a photo driver licensing program in early 1986.

The design of all manual and computer procedures, the installation of camera and computer equipment in nearly 400 locations across the province and all the associated revisions to documents and forms was initiated.

The majority of work will be accomplished by utilizing the resources of existing offices within the safety and regulation program.

Finance and Administration

Transportation Capital Branch

Branch personnel were responsible for the effective management of all transportation capital investment resources. In addition, they provided highway planning, priority setting and programming services on a program-wide basis as well as scheduling and expenditure control for capital construction and ancillary highway investments.

The branch had three functional units: highway program planning, highway program administration and capital investments offices.

Highway Program Planning Office

Office staff were responsible for planning and co-ordinating the future development of the provincial highway program. The functions carried out included the development of provincial highways long-range plan and future highway network perspective; system analysis; development of infrastructure priorities; co-ordination and synthesis of highway planning information and management of the strategic planning process where applied to the provincial highways program.

In the development of infrastructure priorities, program priority and value analysis personnel carried out analysis of the current highway conditions; made forecasts of future rehabilitation needs and recommended spending directions and priorities to the government to maximize public benefits. Value analysis dealt with estimating the costs of various undertakings, and the resulting benefits to the public. This value analysis activity provided the basis for priority setting for the program.

The development of the future highway network perspective was undertaken by highway system analysis staff. They continued to monitor information related to highway capacity and levels-of-service; assessed future expansion needs; and advised the government on the required capacity expansions and its timing. To accommodate public priorities in a more realistic fashion, a more detailed highway classification system was introduced. They also dealt with jurisdictional issues pertaining to the desirable highway system.

Information systems personnel collected, processed and synthesized information about the system and user to support the overall planning and management of the program. Much of it was published and made available to the public. Examples included the "highway distance table" and the "traffic volumes report." In 1984-85, significant advances in efficiency in data collection and more effective usage of such data was made through the automation of the highway inventory.

The manager of the highway program planning office served as program co-ordinator for the provincial highways program committee. Staff supported the committee activities through the preparation of material for consideration; including the position and prospects, program issues, while managing all other business associated with the committee.

Program evaluation was undertaken to assess the effectiveness in terms of measurable public benefits and provide information on the relative significance of various sub-programs.

Staff were also involved in the analysis of financial outlooks, public perceptions, major government priorities, human resource implications of automation and technology, strategic directions, privatization and other external factors, in developing the provincial highways long-range plan related to capital investments, operations and maintenance, design, and administration. Specific five-year directions were developed in various aspects of the long-range plan to ensure program products and services properly match future requirements and emphasis.

From March 17th through March 21st, 1985, the first North American Pavement Management Conference was held in Toronto, sponsored by the ministry and U.S. Federal Highway Administration, in co-operation with the American Association of State Highway and Transportation Officials, the Transportation Research Board and Roads and Transportation Association of Canada.

Organization and management was undertaken by this office. Over 200 delegates attended from state and provincial highway departments, the U.S. and Canadian federal governments, universities, municipalities, associations, consultants and research institutions.

Most delegates were based in North America, but representatives attended from Europe and South America.

During the conference, presentations and workshops were held covering the range of issues from decision making, information gathering, technical methodology, through to the actual implementation of pavement management systems.

The results, published in three volumes of proceedings, will serve as a guide for highway agencies towards the development of their future pavement management plans and procedures.

Highway Program Administration Office

Staff were responsible for the administration of the highways program, including operational planning services, the construction plan, program budgeting services and construction expenditure control.

Operational Planning Services staff continued with the development of an operational planning and management process for the total highway program. Support services were also provided to various other program areas, such as: Ontario Highway Transport Board; structural management committee; Maintenance Branch.

A multi-year work plan was maintained to provide management with the information necessary to direct and monitor capital construction

activities in response to needs and developmental initiatives. The annual construction projects report provided the public and Legislature with a concise look at the fiscal year of the construction plan.

In-year expenditures were co-ordinated, monitored and controlled on a continuous basis and reported periodically to senior management. Advance notices for contract tenders were prepared and issued to members of the Legislature and press.

Special financial statements were prepared on initiatives funded by the Board of Industrial Leadership and Development and construction work carried out on behalf of the Ministry of Northern Affairs.

Scientific computer systems were used in the process of individual project control. Critical path method (CPM) construction schedules were provided as information to bidders on most major projects. The construction resources evaluation package (CREP), program construction integrated statistical file (PCISF), advanced program on line (APOL) and expenditure forecast system (X-FOR) were computer based systems utilized and will be rewritten in third generation systems language of FOCUS. Complemented by increased office automation this will allow greater flexibility in the provision of information needed for decision making purposes.

Capital Investments Office

Continuing fiscal restraint environment fostered greater care in decisions on capital investments funding and timing. This office was established to aid these decisions and co-ordinate corporate level capital investment information for five transportation programs: provincial highways, provincial transit, provincial transportation/air, municipal roads and municipal transit.

With the stronger emphasis on all transportation capital management, more comparable information and analyses on capital investments and trade-off opportunities was needed. Staff, therefore, provided consolidated capital planning and management information on active and proposed transportation capital investments. Analytical procedures were developed to provide appropriate corporate-oriented technical data.

A new multi-criteria priority evaluation system — SELECTRA — was developed to determine technical priorities for all capital projects. This micro-computer based system will allow considerable analytical capability in support of capital investment decisions.

Computer Systems Branch

The development of new automated systems and ongoing maintenance and support requirements for those in existence continued to grow at a relatively high level. Total data processing expenditures for the ministry for 1984-85 was $26.9 million — an increase of approximately 25 per cent over the previous fiscal year.

Total branch complement remained relatively stable at 120. But a number of organizational changes occurred that involved the internal reassignment of staff. The most significant of these involved the regional liaison and production services office (RLPS). A declining workload in the data entry and production control units in conjunction with the introduction of new key-to-disk data entry technology required extensive staff retraining and reassignment. Planned organizational changes will result in the complete dismantling of RLPS over the next one-to-two years. Functional units within RLPS were incorporated into the organization of other branch offices.

Concurrent with these changes will be the creation of a new client support office to support the growth in end-user computing within MTC. This new office will consolidate all user support services currently provided, including the micro-computer resource centre, into one organizational unit. This anticipated change will provide better, more efficient delivery and focus for these services in MTC.

The total number of micro-computers in MTC was estimated at 140 units by year end. In anticipation of the increased demand for the development of micro-computer based applications, the branch initiated a major thrust to develop the required expertise to support this new technology. This involved the acquisition of appropriate equipment and training and development of selected programmers/analysts in each of the three development offices.

Other major activities of an administrative nature included:

- the implementation of a new branch billing and accounting system to replace the existing system which was in use for more than 10 years. It will allow ministry management to monitor the costs of maintaining and operating their automated systems on an ongoing basis;
- support and involvement of MTC staff in the Ontario government information technology strategy study. In addition to participating on a number of project committees/teams, one of CSB's senior managers was seconded to Management Board of Cabinet for a period of 10 months to assist with the integration of project reports and preparation of the overall study document; and,
- completion of MTC's data security study in response to guidelines issued by Management Board Secretariat in January of 1984. Work is now in progress on a comprehensive Security Contingency Plan for MTC which is likely to be completed early in 1986. Other recommendations from the plan are still under consideration by MTC senior management.

Regulation Systems Office

Systems design, development and maintenance services continued to expand throughout 1984/85 to support an extremely active and aggressive workload in the safety and regulation program. That program is responding to public commitments to a photo driver licence system and revised approaches to trucking regulation.

Four major computer systems were established to support the administration of the Ontario Highway Traffic Act and the Public Commercial Vehicles Act with support for the proposed Public Trucking Act and Commercial Vehicle Operator Registration (CVOR) being incorporated into these major systems.

The systems, including driver licensing and control, vehicle registration, accident data and highway carrier licensing were supported, using the full-time services of 40 permanent computer professional staff and many private sector computer consultants who worked with the staff on a project basis. The office operated with an overall average of 36 per cent privatization throughout the year, significantly above the 25 per cent government standard, in order to meet its commitments.

Over 100 operational sub-systems were maintained within the four major computer systems. The continuing development activities within these systems brought public service components more closely together by merging the systems architectures under the vehicle registration system framework. Major redesign of the VRS communications network was undertaken to cope with these expanded requirements. At the same time, the level of service commitments to the public, police and courts were maintained.

Systems development activities also showed a significant increase in the use of prototyping techniques to help in clarifying business requirements and speed up development activities.

In summary, the major activities included:

- major systems design and development work to implement a photo driver licence system;
- major planning and preliminary design work for the commercial vehicle operator registration (CVOR) initiatives under the trucking regulatory reform implementation project;
- implementation of major enhancement releases for the vehicle registration and drivers systems;
- technical support for the huge data base environment being used with these systems;
- implementation of a new stock and financial system to maintain accurate revenue control over the millions of vehicle renewals and transfers each year; and,
- evaluation of the impact of a major review of the accident data system.

Transportation Systems Office

Staff provided systems design, development and maintenance services to three MTC programs: provincial highways, provincial transportation and municipal transportation. These services supported the following aspects of the ministry's engineering process: traffic management, transportation planning, hydrology, highway design, structural design, engineering materials, construction estimating and engineering research.

In co-operation with ministry managers, initiatives were undertaken to reduce unit costs and increase systems responsiveness. These initiatives included the introduction of micro-computers, the use of fourth generation programming languages and pilot studies in computer graphics. Liaison was maintained with other government agencies, universities and systems developers to exchange both expertise and software.

The major projects completed included the following:

- traffic data retrieval via telemetry from automatic traffic counting stations using a portable micro-computer;
- a construction equipment rates inventory referenced to geographical location to assist in estimating construction contracts;
- a pilot project to evaluate the potential of interactive computer graphics in the highway design process;
- assistance to the client in a pilot project to evaluate the automated drafting of highway construction plans;
- enhancement of the highway design system to handle the economical reconstruction technique of pavement recycling; and,
- addition of a column analysis capability to the Ontario modular bridge analysis system.

Management Information Systems Office

Staff provided systems design, development and maintenance services as well as client support to the MTC finance and administration program.

Approximately 38 operational systems were maintained in support of financial operations, work project management, the operations management system (OMS), MTC equipment management, MTC maintenance management, provincial highway inventory, human resources, performance budgeting and the CSB accounting system.

Personnel continued to transfer responsibility for systems operation from CSB to the users. Presently all systems are operated by the users, via on-line terminals at their own location.

Some major development projects are listed below:

- MTC Project Control: several systems allocating resources and monitoring expenditures for some 3,000 work projects within the highway program (transportation capital branch) were consolidated and replaced. A new on-line interactive data base management system improved productivity and provided the end user with the information required to conduct day-to-day business.
- Worker's Compensation Monitoring System, (WCMS); MTC/MNA and MNR occupational health and safety offices were utilizing the new Worker's Compensation monitoring system. The head office centralized system, running out of the Downsview computing centre, provided instantaneous information on claims mailed in from the regions/districts and invoices or award payments from the WCB.
- The Operations Management System, (OMS), was enhanced with the addition of a module to capture remote data for other ministry systems via the OMS communications facility. It also provided easier access to management information. A "sign shop" sub-system was also implemented.
- A revised maintenance management planning system was implemented to simplify the preparation of the annual highway maintenance management plan.
- The human resources inventory system was enhanced to allow simultaneous update for all ministry programs.
- The equipment inventory system was automated for on-line data entry and validation and on-line information access.
- A new front-end facility was introduced in the progress payment certificate system to standardize preparation of payment certificates in all regions.

Planning and Technical Support Office

Staff provided technical support to branch development offices and ministry client offices in the effective use of information technology. As well, information technology strategic planning section staff published a series of strategic documents which contributed directly to the formulation of the ministry's strategic directions.

Other achievements included:

- The initiation of a ministry-wide data security project which will lead to a ministry contingency plan;
- The initiation of a study of distributed data processing requirements which will lead to a successor for the current operations management system;
- A comparison study was initiated to examine MTC's requirements for engineering computing facilities;
- Policy and procedures were developed for the acquisition of information technology. As well, a micro-computer policy was drafted;
- An enhanced MTC data processing budget and usage monitoring system was implemented to provide better information on information technology support; and,
- As part of mirro-computer support activities, the technical support group handled the acquisition of 99 micro-computers for cost centre managers across MTC bringing the total to 140 micro-computers.

Regional Liaison and Production Services Office

Staff provided production support to MTC computer users, municipalities and engineering consultants working on ministry projects, including:

- Key-punched cards for batch systems were eliminated in the central data entry section, replaced by an on-line key-to-disk data entry system for all users;
- The transfer of responsibility to users for systems operation was achieved and resulted in all system production support staff being transferred to other areas of the branch/ministry;
- Automatic plotter group produced engineering drawings for highway planning and construction projects; and,
- Library staff supported client requirements and development offices updating of systems to production.

Organizational changes were:

- Drivers and Vehicles Section was transferred for administrative purposes from RLPS to the Regulations Systems Office (CSB);
- Computer equipment acquisition group which also maintained the inventory of terminals, printers, controllers, modems etc. was transferred from RLPS to the Planning and Technical Support Office, (CSB).

Human Resources Planning and Services Branch

Branch staff have been responsible for the provision of a wide range of services, including human resource planning, policy and program review, staffing, classification, employee benefits/records, staff relations, occupational health and safety and staff development.

Branch objectives were directed toward providing these human resource services to senior/line management and MTC employees in an effective, efficient and economical manner.

Increased emphasis was placed on corporate and branch strategic human resource planning, as well as expanded use of office technology. Products and services were re-examined in light of a planned reorganization which, when implemented, will provide a new focus for staff relations and regional liaison.

Staff Relations Office

Staff conducted a full range of labour relations services; interpreted and assisted with administration of existing policies, procedures, regulations, related acts and collective agreements, assisted with union negotiations; actively participated in the development of strategy and ministry policies and philosophies in the labour relations area.

Personnel have been involved in co-ordinating all aspects of the grievance procedure and contract administration. The arbitration process, becoming increasingly more complex and sophisticated, required a great deal of input/interface with professional lawyers in the labour relations field.

Employer/employee relations committees were more active than ever. The ministry level employee/employer relations committee was represented (on behalf of the employer) by an assistant deputy minister, executive director and director of human resources planning and services. In addition, the local employee/employer relations committee for the Downsview complex recently held its first meeting.

Staff worked closely with the Civil Service Commission in developing training courses in staff relations for line managers. Delivery is anticipated to begin in the fall of 1985.

Two recent developments that will require significant involvement from the Staff Relations Office were the impact of Section 15 of the Canadian Charter of Rights and Freedoms and increased union interest in the area of occupational health and safety.

Occupational Health and Safety Office

Staff developed MTC policies to meet or exceed the demands of existing and new regulations under the Occupational Health and Safety Act, providing a safe, healthy environment for all employees. During the year, new directives were issued concerning protective clothing, welding and chain-saw safety.

Staff continued to provide courses such as first aid, back care and safety staff development courses. They also provided consultative advice and expertise to managers for evaluation of health hazards. A series of safety presentations were given to all summer students by staff.

Evaluation of potential health and safety hazards were monitored on a regular basis and medical surveillance programs will be implemented when deemed necessary in the future. All safety personnel were trained in industrial hygiene practices. As well, a province-wide welding survey was conducted to assess potential welding hazards.

Personnel also provided procedural co-ordination for the three-tier joint health and safety committees. Support included administrative assistance for the 3rd level — the ministerial committee, as well as participation in discussions with OPSEU regarding future structural and procedural changes.

Other accomplishments included the computerization of all Workers Compensation Board claims, making possible the distribution of more accurate information to all interested parties.

Human Resources Administration Office

Staffing Section

Staff initiated, developed and administered staffing policies and procedures with emphasis on equitable selection, placement and assignment of suitably qualified people with appropriate experience and skills required to meet the ministry's needs.

They also participated in the Winter Experience program. And the number of students allotted for Summer Experience '84 increased from the previous year. Both were funded by the Youth Secretariat. Seventeen engineers and eight multi-disciplinary graduates were recruited for the three-year management development program.

Ongoing services included staffing of permanent and temporary vacancies; information to the public about employment opportunities; and a consulting service to line managers and employees.

Classification and Pay Administration Section

Staff reviewed and classified over 750 positions as a result of head office

reorganization and similar changes in the regions in areas such as: Planning and Design, Safety and Regulation and the Remote Northern Transportation Office.

They continued to participate with the Civil Service Commission in major standard development projects, including design and technical engineering services and standards development projects for a number of class series, e.g. technician, photographic and northern affairs officers.

Classification staff worked with the CSC to carry out wage surveys to obtain data for salary negotiations while participating in the government salary negotiations process for bargaining unit categories.

Benefits and Records Administration

Section staff provided a service for the managers, employees and families of employees on pension matters and insured benefits. These included the administration and documentation of employees regarding classification and pay changes prior to processing through the corporate integrated payroll, personnel and employee benefit system. As part of improving the administrative support supplied by the branch, increased use was made of electronic technology.

Staff also co-ordinated, along with MGS employee Counselling Services Branch, a rehabilitation program to provide assistance to employees absent from work for an extended period due to illness or injury.

As a result of the introduction of Bill 54 "An Act to amend the Public Service Superannuation Act" workload increased significantly. There were approximately 600 requests to establish credit for past non-contributory service. Some other significant highlights of the Bill include: indexation of salary base for pension calculations of employees on LTIP; guarantee of pension benefit for contributors not employed prior to 1966, but whose pension credit date was established as prior to 1966 either through transfers or purchasing pension credits; employees on maternity and/or adoption leaves will only be required to pay single contributions (seven per cent) to establish credit in the pension plan; and a special survivor benefit.

Human Resources Planning and Development Office

Human Resources Planning Section

Staff developed human resources planning process and policies, collected and maintained relevant and current MTC employee data and provided administrative support to line managers, subcommittees and the human resources committee.

A major initiative undertaken was the development, marketing and implementation of a proactive search and nomination process as an alternative staffing method for management positions.

The section provided consultative and administrative support to the program human resources committees, particularly in assisting in the development of human resources long range plans. As added support, the human resources inventory was expanded to include additional staff levels and refined to provide more specialized reports.

Staff also provided co-ordination and administrative support of the ongoing management familiarization and management development programs which were directed at the development of managers and potential managers to meet MTC's future needs.

Initiatives and Development Section

Staff initiated human resources policy development, assessed human resource policies, practices and systems; co-ordinated branch strategic planning; provided a focus for incoming suggestions concerning human resource innovations and improvements; and provided consultative and administrative support to the branch.

They took a lead role in developing several MTC policies, including temporary assignments and attendance improvement. A review was underway of the current performance appraisal system and recommendations will be presented for consideration by the ministry's senior human resource committees.

Personnel worked on a range of potential suggestions and improvements concerning human resource policies and practices received from many sources, including the management Standards Implementation Project, Employee Incentive Program, Affirmative Action Program, Management Employee Group and senior human resource committees.

Initiatives and Development Section

Consultative and administrative support was provided to the branch, including co-ordination of the branch budget, monthly financial reporting, office automation training, speeches and briefing materials.

Staff Development and Training Section

Staff provided a broad range of training and development services throughout the ministry to promote organizational and staff growth and development and employee competence.

A wide variety of technical, management and development courses were conducted with increased participation in all areas. Technical training staff continued to provide services for both ministry and municipal employees. Consulting services and special course development and delivery expanded over the previous year.

Special projects included assistance and guidance in performance appraisal, attendance improvement and pre-retirement planning. Products and services were reviewed in light of branch and program long-range plans. Linkages with program areas were strengthened and work commenced on increased co-ordination, training needs analysis and modular course development.

Supply and Services Branch

Branch staff are responsible for ministry-wide policy and procedures for supply and services. This included a wide range of purchasing and other services for head office and the Ministry of Northern Affairs. On behalf of the government, branch personnel consolidated the purchase and disposal of all motor vehicles as well as the purchase of all petroleum products, tires and related items.

The following describes the activities of the branch offices and sections:

Tenders Section

Section staff maintained strict security over all head office contracts. Approximately 5,673 tenders were received and processed for 780 contracts while some 1,895 contractors/suppliers attended public tender openings.

In advertising, some 382 insertions were placed to the news media regarding tender calls and public notices.

Sales of contract documents, various construction-related manuals and MTC's contract bulletin produced a revenue of $105,825.

Service Centres and Food Services Section

The 23 highway service centres leased by the ministry to various oil companies generated $5.5 million in government income. This was up from $4.7 million the previous fiscal year. The $800,000 increase was a result of new leases with Esso and Gulf wherein rent was payable in advance which was over and above the percentage rental paid by Esso and Gulf at the conclusion of their original contracts. In effect, MTC received two years rental at the same time, one payment under the new lease and one under the old lease.

Section personnel maintained an extensive service centre inspection program which documented any problems and ensured the operation of each centre complied with the terms and conditions set out in the leases. Follow-up inspections ensured that earlier problems were satisfactorily resolved.

Esso's refurbished facility at Newcastle was officially opened July 10, 1984. Completely revamped, a Burger King restaurant was introduced. Esso reported sales of both food and fuel were up substantially over the previous year. This augured well because gasoline sales for all service centres had declined steadily over the past decade. Restaurant sales had barely kept pace with inflation. These results should encourage the other oil companies to explore similar initiatives. Esso has now begun similar modifications at their Woodstock and Maple locations and plans to complete construction prior to the Victoria Day weekend (1985).

Gulf Canada received approval to introduce a McDonald's restaurant at each of their locations together with improvements to the gas bar and service station. The first such McDonald's restaurant at Barrie was opened February 10, 1985. The remainder were scheduled to be completed by late spring (1985). Staff expect the McDonald's venture will parallel the success achieved by Esso at Newcastle.

The new Esso and Gulf leases featured pricing clauses which stipulated the prices charged for fuel could not exceed the average of those charged at other Gulf and Esso service stations in a specifically defined local market; that the prices for food at the Burger King and McDonald's service centre restaurants could not exceed those at off-highway Burger King and McDonald's restaurants.

Although the other oil companies did not undertake major renovations of the sort started by Esso and Gulf, they have begun to take more interest in their highway service centres. For example, a meeting between Shell and MTC strengthened Shell's resolve to clear up a number of outstanding problems which had long been a concern of this office. As well, Texaco considered introducing part of their System 2000 service station program, with the ministry encouraging Texaco to implement their entire program and, perhaps, marry these changes with substantial improvements to the restaurants. Similar meetings were also held with representatives of Petro Canada.

Services for the physically disabled — such as parking, washrooms, telephones, water fountains and restaurants — were available at all service centres.

There were 10 service centres offering propane, up from eight the previous year. As well, the total number of service centres using the gasoline price signs increased from 12 to 16.

Two outdoor information facilities together with 18 travel information booths allowed motorists to get information on lodging and local points of interest. The travel information booths, operated by the Ministry of Tourism and Recreation, were open from about mid-June to the Labour Day weekend. In addition, the ministry maintained picnic areas at 21 service centres.

The Ministry of Agriculture and Food established five Ontario fresh produce markets at five highway service centres. Advanced signing provided by MTC contributed to their success.

Purchasing and Supply Office

Staff were responsible for the purchase of all construction and maintenance materials and general ministry supplies, totalling about $70 million.

Motorized vehicles and fuels purchasing personnel acted in the purchase of vehicles and fuels through standardization of specifications and consolidated purchasing for all Ontario Government ministries and agencies. Purchases totalled approximately $59 million.

Stores personnel allowed MTC to take advantage of savings by bulk purchasing, also facilitating ministry operational functions by having materials available for use. They also reconditioned and stored bailey bridge components for emergency use. Currently, there are 167 such installations in the province.

Section staff facilitated the disposal of all used MTC equipment, surplus material and all government motor vehicles, via public auction or tender. Sales totalled $4.6 million. Review of district supply operations were conducted where appropriate.

The movable asset control system consisted of approximately 46,000 items valued at approximately $110 million and was co-ordinated by section staff.

Information Management Office

Staff were responsible for providing assistance to MTC and MNA in the efficient and cost-effective management of recorded information.

Information analysis unit personnel focussed their activities on the development of policies, procedures, and administrative tools to better manage the ministry's recorded information resources. These included:

- the development of information classification and evaluation systems;
- the identification and retention

scheduling of MTC's recorded information;

— the preparation, production, and distribution of MTC's Data Directory, a comprehensive, indexed compendium of information sources within the ministry and from selected external organizations; and,

— the development of the retention schedule database, and launching of the automated schedule implementation notice system. The latter provided custodial offices with regular and descriptive notices of the stages in each record series lifecycle, and the appropriate means of storage or disposal.

Over 15,000,000 records were disposed of in accordance with approved retention schedules, resulting in a cost benefit of $126,000 in reclaimed office space and filing equipment.

Similarly, over 150,000 records were transferred to the Ontario Government Archives, ensuring the preservation of vital information. The microrecording unit filmed in excess of 1,100,000 hardcopy records.

Central registry staff were responsible for the coding and indexing of correspondence received from ministry offices. During the year, approximately 28,000 pieces of correspondence were coded while over 11,000 records indexed. In addition, the unit received 400 engineering plans, 5,200 legal survey plans, 2,100 survey plans and related documents to be indexed into the title record books. Approximately 9,000 information searches were conducted by registry staff with 21,000 prints of highway survey data and construction records provided to MTC and external agencies.

Forms management unit staff provided design, analysis, procurement, and control services for both MTC and MNA forms and stationery items. During the year, a total of 164 new forms were registered, while 98 existing forms were declared obsolete, resulting in an estimated procurement savings of $180,000. The number of MTC and MNA forms, as registered in the units' automated forms catalogue, now totals 2,500. Additional activities included the identification of forms potentially affected by proposed access and privacy protection legislation, the revision of 293 ministry forms, and the processing of orders for 147,500 calling cards.

Library and information centre staff provided library and reference resources for MTC and the transportation community, acquiring all publications and subscriptions to periodicals and newspapers. They provided reference services, computer searches, inter-library loans and issued two regular publications, Library News and Journal Contents, to ensure all clients were informed of current acquisitions and holdings. The library increased its computerized information search capability while automation of its existing collection was initiated by joining UTLAS (University of Toronto Library Automation Systems).

Information production and support staff provided "camera-ready" production services, arranged the printing, distributed and/or sold the 200 MTC manuals and amendments centrally controlled through the information management office. In total, over 12,000 copies were distributed to ministry offices, other government institutions and the public. In addition, staff administered the printing, update and distribution of ministry directives with almost 79,600 copies distributed during the year.

Graphic services personnel were responsible for the preparation and update of engineering indices of technical data (strip plans) on all provincial highways. In addition, they produced "camera-ready" copy for ministry forms and prepared illustrations for ministry manuals and publications.

Map area staff provided for the availability, printing, inventory, sale and distribution of all MTC topographical maps. In excess of 335,000 were distributed or sold. Map No. 5, South Central Ontario, and Map No. 8, Eastern Ontario, of the Ontario Transportation Map Series were published during the year. The 1984 Ontario wall map was also published.

The Administrative Improvement Section staff provided a wide range of services relating to administration of this ministry's and MNA's convenience photocopiers, engineering copiers, word processing systems and office automation equipment. These included the feasibility study/needs analysis, equipment specifications, acquisition process, implementation assistance and support for both product lines, word processing and photocopiers.

During the year they conducted feasibility studies, word processing study/reviews and photocopier study/reviews for new system acquisitions and enhancements to existing systems. Personnel also performed ongoing consulting services relative to applications identification and development.

The major undertaking during the 1984-85 fiscal year was the comprehensive review of convenience photocopier requirements. On completion, equipment specifications and acquisition process for 188 photocopiers was affected. These products were installed during a four-week period throughout our eighteen district offices, five regional offices and head office.

Graphic Services Office

In support of all ministry programs, staff completed 23,578 reproduction requests, recovering in excess of $885,000.

Reproduction services included offset printing, screen process printing, specialized black and white and colour photographic reproductions, white printing and high speed photocopying.

Related responsibilities include administration of MTC and MNA identification card programs and processing of printing requests completed in the private sector.

Accommodation Services

Staff were responsible for arranging office layout design requirements to meet organizational needs for program delivery; realigning various branches into office entitlement standards and developing sufficient space to accommodate complement from leased premises and releasing approximately 1,000 square meters of space in the Downsview area.

They also prepared and submitted the multi-year accommodation program to Management Board; liaised with MGS on the construction of a new addition to regional offices in Kingston and relocation of personnel from various leased premises to the new facility.

Instrument Repair and Test Shop

Personnel operated the only MTC facilities for repairing, calibrating and environmentally testing highly specialized and precise engineering instruments such as theodolites, other miscellaneous survey equipment, traffic counting recorders, solid state timers, detectors, transceivers, decoders, monitors, switch packs, isolators, relays and other miscellaneous electronic equipment pertaining to traffic signals control.

They were also responsible for the repairs and the acquiring of new transceivers (walkie-talkies) for regions, districts, and head office. A charge back system was implemented with recoveries of approximately $152,000.

Special Services Operations

Personnel of postal operations were responsible for incoming and outgoing mail handling and courier mail service to all regional and district offices. They were also responsible for teletype/telex centre activities, as well as the operation of the mailmobile service throughout the Downsview complex.

Volumes of mail reached were: outgoing mail 1,587,263; incoming

mail 1,506,183; teletype/telex messages 191,468.

Material control personnel were responsible for handling moves and office realignments, delivery of supplies, furniture and equipment etc., processing orders and invoices, arranging for furniture and equipment repairs on a call-as-needed basis.

Volumes included: moving realignments; by contract mover, 55; by staff, 62.

Receiving/distribution included: shipments received, 2,658; pieces processed, 36,260; order processed, 658; service calls, 1,921; and invoices processed, 1,297.

Telecommunications Services Section

Projects completed included the replacement of the Ottawa and Kingston radio systems at a combined total cost of $870,000. Coverage developed from these new systems was markedly superior to the previous systems and system reliability was expected to increase.

Design work was largely completed for the replacement of the Thunder Bay radio system. The work conducted was based on a proposed joint agreement between MTC-MOH-OPP with the objective of limiting costs and avoiding unnecessary duplication of facilities. Negotiations continued.

Ministry of Environment limited sharing of MTC radio frequencies came into effect and to date a total of 120 of their mobile radio units have been approved for installation province-wide.

With regard to the sharing of MTC radio frequencies, permission was granted to the Ministry of Revenue for limited sharing for emergency or life-threatening situations. The number of participating vehicles was restricted to five.

Extensive testing of facsimile as a proposed replacement for the present private wire teletype system was conducted. Specifications for the procurement of a comprehensive high-speed, digital facsimile system was prepared. Tests promised significant cost savings over the present teletype system.

Further experimental work was conducted with the use of CN-CP electronic office services as an economic method of handling written correspondence. The initial results were promising.

A total upgrading of the telephone switch serving the Kingston regional office was completed. The old switch was replaced by a digital switch which provided numerous features unavailable on the old one. The new installation will be compatible with a universal numbering plan to be introduced by MGS.

A digital switch was installed in New Liskeard.

Studies continued on the proposed replacement of the Downsview telephone switch. Latest estimate of the project completion was from nine months to a year.

Road information services were improved in Southwestern Ontario by the installation of a number of digital automated answering devices. Areas supplied with these digital answering devices included Kitchener, Barrie and St. Catharines.

Audio teleconferencing system use showed an increase over the last year with an average of 15 teleconferences per month.

Financial Planning and Administration Branch

Budgetary Planning and Control Branch

Personnel were responsible for acting as a liaison with Management Board of Cabinet, Ministry of Treasury and Economics, other central agencies and planning, evaluating, developing, controlling and analyzing MTC's budget which consists of three sections.

Budget staff were primarily involved in acquisition of resources to produce MTC's annual expenditure budget. They co-ordinated preparation of the expenditure and revenue estimates submission, represented the ministry throughout the resources allocation process and developed MTC's request for personnel and financial requirements in the ensuing fiscal year.

Analysis staff monitored expenditures and revenues, identified deviations and developed financial options for resolution. They also provided support to program managers in the in-year management of financial resources.

Evaluation personnel co-ordinated integration of the managing by results concept with MTC's existing management processes.

Financial Systems Office

Personnel provided expertise in both computer and manual financial systems processes to aid managers in the effective management of financial resources. They were responsible for the introduction and upgrading of financial systems while continuing to maintain a high degree of efficiency within current systems.

This provided financial analysis and evaluation for in-year monitoring and control, performance assessment, financial information and reporting for managers.

Qualification Control Office

Staff maintained and used procedures to ascertain contractors abilities to meet ministry pre-qualification standards, initiating, developing and implementing improvements in the pre-qualification process. There are now in excess of 360 contractors qualified with MTC.

Chief Accountant's Office

Staff were responsible for all functions usually associated with a large accounting organization: payroll, accounts payable and receivable, maintenance of financial records, preparation of financial statements and liaison with the Ministry of Treasury and Economics.

There were three key areas:

Expenditure Office

Staff developed operational policies and procedures related to accounts payable, expense accounts, payroll and subsidies. It maintained and utilized procedures for the issuing and distributing of payroll cheques, processing of accounts payable data for the issuing of treasury cheques and provision of expenditure information.

Personnel monitored and co-ordinated policies, procedures and budgets in relation to employee relocation entitlements.

Personnel also monitored expense account data to ensure compliance with regulations and the provision of statistical information.

Revenue Control Office

Staff developed operational policies and procedures related to revenue accounting and cost sharing.

They processed and recorded accounts receivable data and reconciled the concentrator account for all local payments and advances with treasury.

They deposited all revenue received to the consolidated revenue fund and all refund of expenditure to treasury.

Personnel also reconciled all monies deposited in the direct deposit system by drivers and vehicles agents and established accounts receivable for shareable agreements made by the ministry, compiled, prepared and distributed all statistical financial documents and produced and co-ordinated the daily operations of all financial and statistical reports.

Accounting and Administration (Head Office)

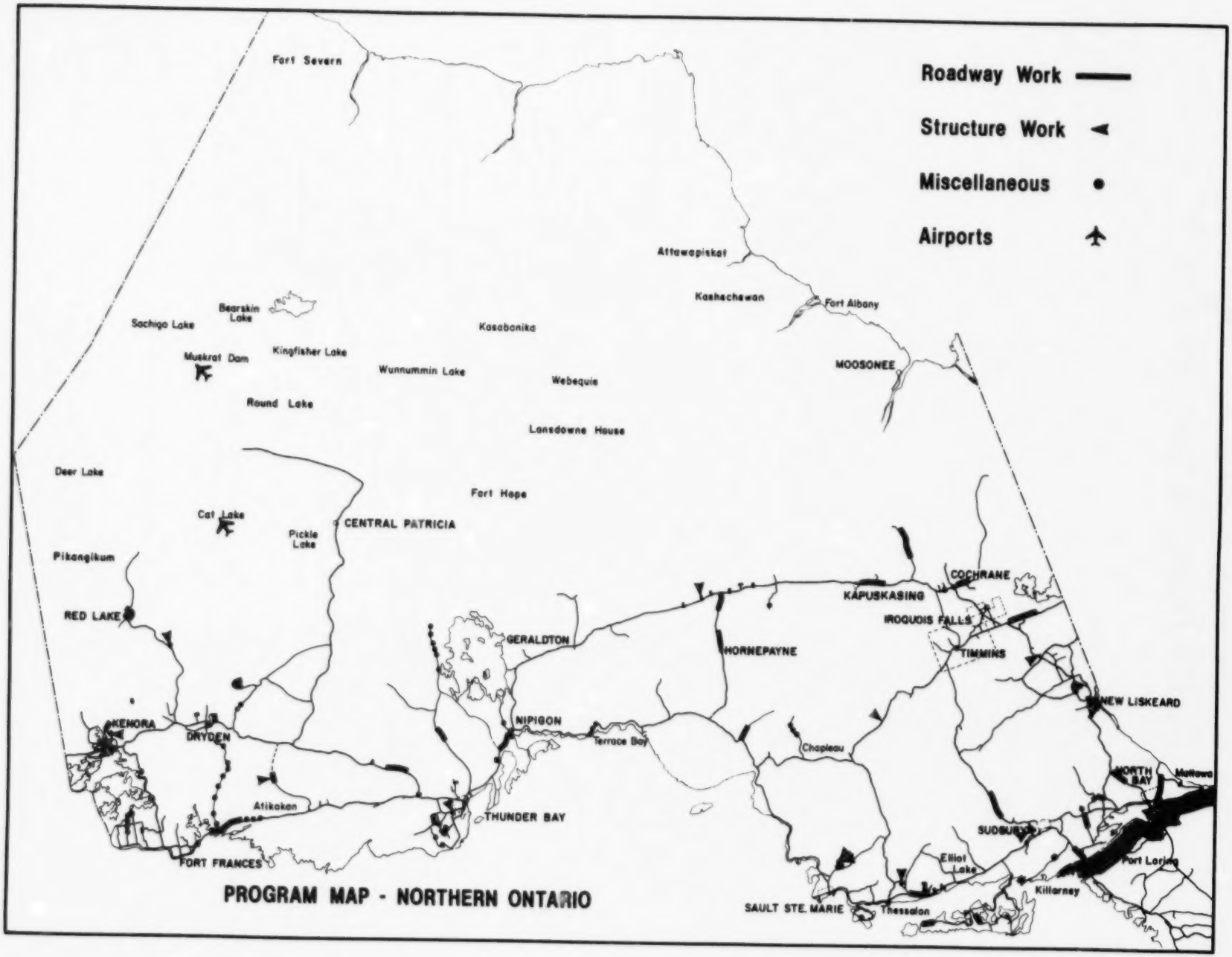
Staff provided a regional accounting and administration service for head office ministry staff and the Ministry of Northern Affairs in four distinct sections.

Pay and personnel staff were responsible for the maintenance of attendance records and control and distribution of pay cheques.

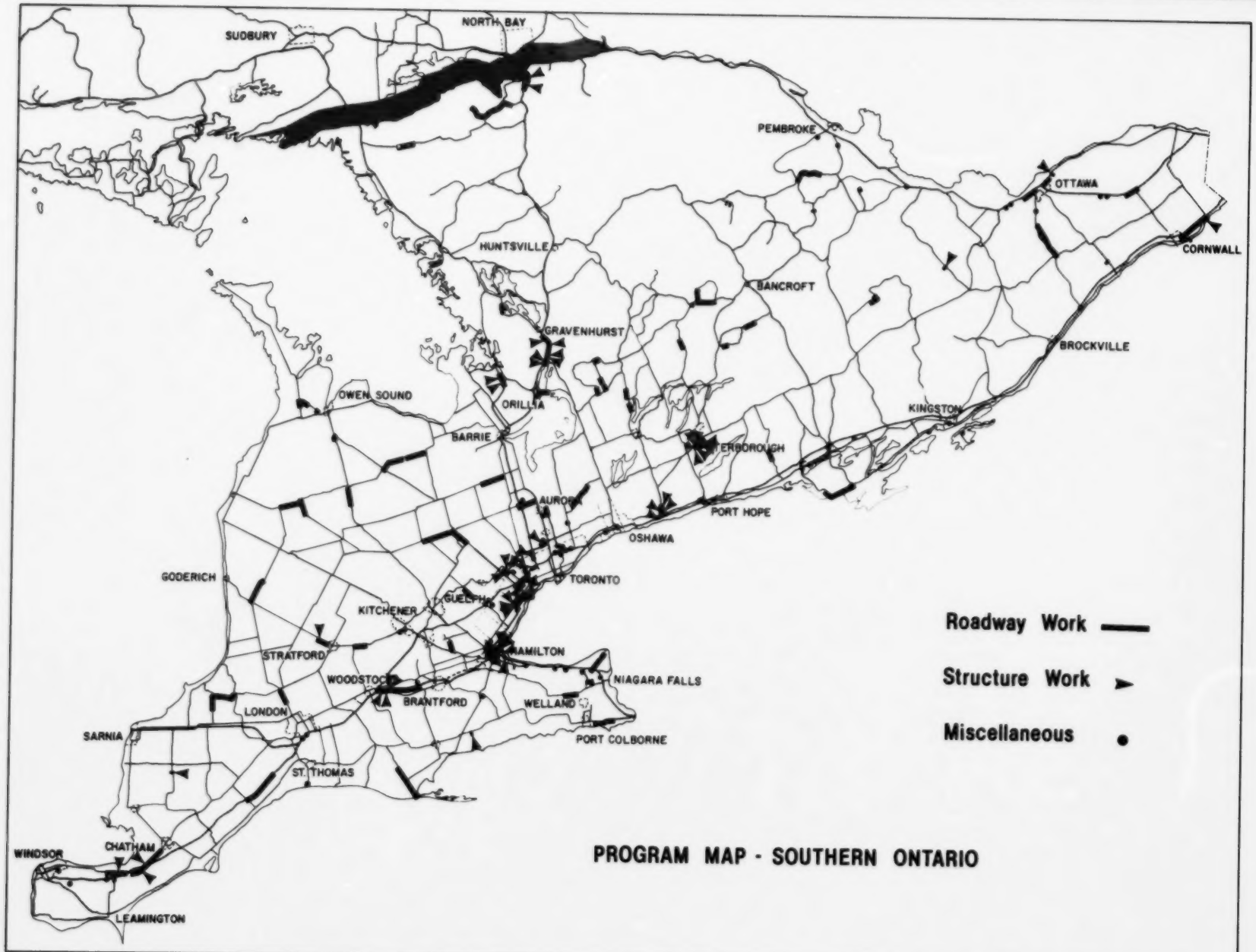
Budget staff were responsible for the recording and reporting of cost centre expenditures and the recovery of expenditure in accordance with predetermined agreements on behalf of the head office cost centre managers.

Accounts payable personnel were responsible for the orderly payment of invoices, employee expense accounts, inter-ministry accounts and payment to consultants in accordance with agreements. They were also responsible for the head office accountable advance account.

Administration staff provide head office management with a variety of services such as accounting re: auction sales, participation in miscellaneous supply tenders, mail messenger service, etc.



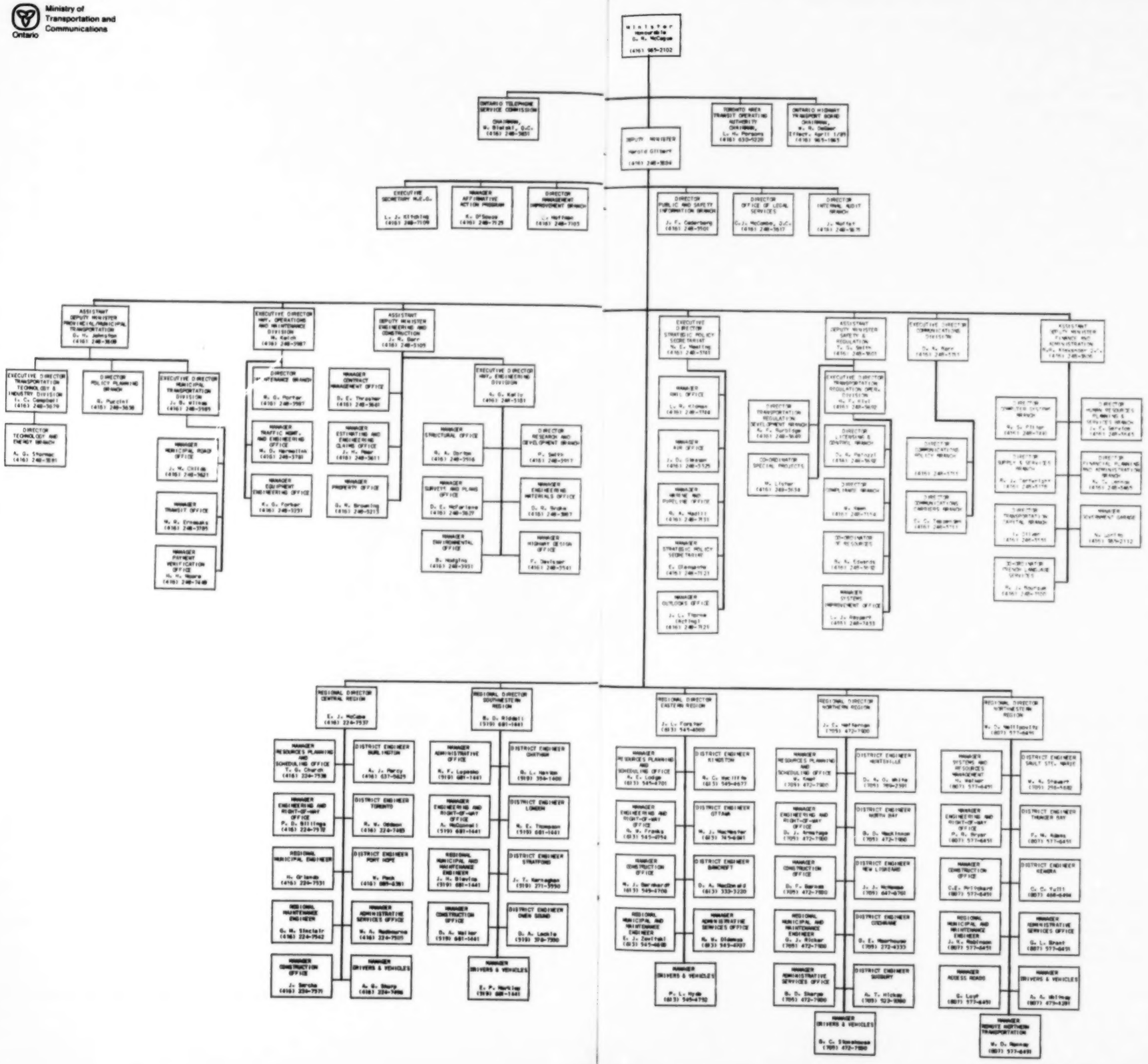
PROGRAM MAP - NORTHERN ONTARIO



PROGRAM MAP - SOUTHERN ONTARIO

Ministry of Transportation and Communications

Ontario



CONVICTIONS REGISTERED UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1983	1984
7	Fail to register a vehicle	28,242	53,605
9(1)	False statement	101	47
9(2)	Fail to notify new address	2,376	1,610
10	Fail to have number plates	3,593	949
12	Violations as to number plates	2,343	4,467
13	Improper use of number plates	929	745
18(1)	No driver's licence or improper class	17,590	21,272
18(3)	Driving in breach of condition	2,164	2,712
19	Fail to produce operator's licence	24,555	21,524
21(1) a,b,c,d,	Driver licence violation	581	452
22	Driver suspended in Ontario — licence out-of-province	14	19
23	Operation of motor vehicle by person under 16	12	40
24	Driving motor assisted bicycle under 16	0	0
30(2)	Unlawful possession of permit	5	4
30(3)	Unlawful possession of licence	136	105
35	Driving while licence is suspended H.T.A.	12,761	12,544
41	No garage licence	72	31
42	Record of wrecked vehicle violation	12	7
44	Improper light violations	12,666	10,621
46	Defective brakes	1,822	1,664
48	Faulty equipment (mirror, windshield, etc.)	450	354
52(1)	Defective — improper tires	1,204	1,418
52(2)	Improper attachment on wheels	10	0
55(1) a & b	Driver view obstructed	183	156
55(2)	Colour-coating obstructing view	99	68
55(3)	Obscured interior colour-coated windows	336	259
56(1) a & b	Windows obstructed	1,215	1,317
57	Excessive noise/smoke/fumes	12,814	12,188
58	No slow moving vehicle signs	74	72
61(2)	Radar warning device prohibited	630	1,017
62	Fail to have proper trailer attachments	1,104	1,014
65(2)	Unsafe vehicle	2	2
65(3)	Failing to submit to vehicle inspection	1,239	1,266
67	Driver unsafe vehicle	2,454	2,302
68(1)	Operate vehicle — fail to display device	698	634
69	Affix vehicle inspection sticker not MTC issue	4	2
71	Certificate of mechanical fitness violation	5	2
87	No name of owner on commercial vehicle	481	423
88	Driver/ride motorcycle no safety helmet	1,340	2,047
90(2)	Remove/modify/inoperative seat belt assembly	1,298	996
90(3)	Failure/improper use seat belt assembly — driver	85,646	59,478
90(4)	Passenger — failure to ensure seat belt use	6,540	4,134
90(6)	Driver — failure to ensure passenger seat belt use	2,447	3,839
92(1)(2)(5)(6)(9)(10)	Excessive vehicle width/length/height	1,268	1,371
93(7)	Special permit violation	403	266
93(1)	Overload in excess of permit	5	7
93(2)	Fail to produce commercial ownership permit	8	8
93(4)	Spring regulations — overload	0	1
94(1 & 2)	Overhanging load/improper loading	2,049	2,363
98(1) (1b)	Overweight — tires	6	6
99(1)a	Overweight — single axle (single tire)	42	11
99(1)b	Overweight — single axle (dual tires)	1,194	990
99(1)c	Overweight — dual axle	5,337	4,771
99(1)d	Overweight — triple axle	164	128
99(2)	Overweight — dual axle (single tire)	4	6
99(3)	Overweight — triple axle (single tire)	1	0
99(4)	Overweight — single front axle (no verification)	35	41
99(6)	Overweight — single front axle (exceed rating)	14	15

CONVICTIONS REGISTERED UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1983	1984
100(a)	Overweight — two axle group	68	28
100(b)	Overweight — three axle group	102	86
100(c)	Overweight — four axle group	43	23
101(1)(abc)	Gross vehicle overweight	1,622	1,425
101(2)(3)	Fail to produce/violate authority	16	47
102(3)	Overweight during freeze-up	318	44
103	Overweight on axle Class B highway	14	3
104(1)	Overweight in excess of permit	3,056	2,081
104(2)(5)	Fail to carry/produce permit	229	19
104(7)(8)	Overweight — March/April	3	0
109	Speeding 50 km/h or more over the limit	3,498	3,248
109	Speeding more than 29 less than 50 km/h	81,276	81,338
109	Speeding more than 15 less than 30 km/h	250,193	238,133
109	Speeding under 16 km/h	419,590	396,614
111	Careless driving	17,003	17,667
113	Unnecessary slow driving	146	131
114	Fail to obey signal of police officer	226	183
114(3)	Drive vehicle on closed road	181	147
115	Fail to yield right of way	178	163
116	Fail to stop at through highway	55,537	46,503
118	Fail to obey yield sign	584	558
119	Fail to yield — from private road	6,580	7,211
120	Pedestrian crossover violation by driver	4,195	2,648
121(1)	Improper right turn	9	65
121(2)	Improper right turn at intersection	3,031	2,398
121(3)	Improper right turn — multi-lane	348	269
121(4)	Improper left turn — across path of approaching vehicle	5,589	6,065
121(5)	Improper left turn at intersection	5,960	5,616
121(6)	Improper left turn — multi-lane highway	900	883
122(1)	Fail to signal for turn	14,127	14,641
122(2)	Fail to signal moving from parked position	3,905	4,093
122(4a)(4b)	Improper manual signal	5	5
122(5)	Improper directional signal	35	30
122(6)	Improper use of signaling device	71	64
122(7)(7a)(7b)	Fail to signal	114	111
123	Prohibited U-turns	159	177
124(5)	Disobey red signal light	48,122	42,985
124(7)	Disobey amber light	9,516	5,777
124(8)(9)(10)(11)	Flashing red-amber-green arrow	2,483	3,473
124(12)	Fail to give right-of-way to pedestrian	922	518
124(13)	Prohibited turn	26,679	16,495
124(25)	Disobey traffic signal	1	12
125(3)	Disobey portable lane control signal — red light	61	54
125(4)	Disobey portable lane control signal — amber light	34	41
126	Drive right side of multi-lane highway	173	160
127(1)(2)	Fail to share the road	1,915	2,089
127(3)	Fail to move to right	138	141
127(4)	Vehicle or horsemen overtaking others	443	469
127(5)	Horsemen or vehicles overtaking bicycles or tricycles	51	50
127(6)	Improper passing	16	21
127(7)(a)(b)	Improper passing	1,125	1,090
128	Driving left of centre of highway	1,292	1,347
129(1)	Passing to right of vehicle	89	169
129(2)	Unsafe passing to the right	3,227	2,778
130(1)	Fail to obey signs posted on paved shoulder	551	591
132	Wrong way on a one-way street	5,619	4,995
133(a)	Unsafe lane change	6,134	5,741
133(b)	Drive in centre lane of three lane highway	169	118
133(c)	Fail to drive in slow moving traffic lane	4,695	3,544
135(a)(b)	Improper driving on divided highway	648	585
135(a)	Backing on highway	182	18

CONVICTIONS REGISTERED UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1983	1984
136(1)	Following too closely	16,021	16,329
136(2)	Following too closely in commercial vehicle	315	313
137(1)	Fail to yield to fire department vehicle, etc.	280	286
137(2)	Following a fire department vehicle	15	18
140	Crowding driver	421	320
141	Fail to stop for crossing (signal)	183	185
142	Drive through under or around railway barrier	182	182
143	Improper opening of vehicle door	233	307
144(1)	Improper approach or passing a stopped streetcar	168	139
144(2)	Pass streetcar on left side	38	28
145	Improper driving when approaching animals	25	3
146	Fail to use passing beam	987	1,001
147	Improper parking on highway	546	561
147(8)	No warning lights on commercial vehicle	11	13
147(9)	No flares	117	19
147(10)	Vehicle interfering with traffic	486	522
148	Racing	66	62
150(b)	Failure to stop for school bus or public vehicle at railway crossing	18	25
151(5)	Fail to stop for school bus — meeting	1,702	940
151(6)	Fail to stop for school bus — overtaking	0	149
151(7a)(7b)(7c)	School bus — fail to actuate signals	21	32
151(9)	Unlawful use of red signal lights on school bus	4	6
151(11)	School bus — failure to cover signals and signs	14	24
152(3)	Fail to obey school crossing stop sign	66	81
156	Littering highway	895	649
158(2)	Disobey legal sign	4,567	3,284
159	Fail to obey a direction sign	36	13
173	Fail to report an accident	4,117	4,282
174	Fail to remain at the scene of an accident	2,576	2,729
175	Fail to report damage to highway property	657	58
189(a)	Fail to stop for police	808	861
	Others	1,786	6,776
	TOTAL	**1,271,334**	**1,201,565**

REGULATIONS UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1983	1984
484	School bus violation	19	8
469(14)(15)(16)(17)	Number plate violation	395	62
462	Motorcycle violation	195	593
462(13)	Classified licence violation	34	32
462(19)	Fail to notify name/address change	1,958	1,421
462(20)	Fail to sign licence	683	897
469(21)	Only single beam headlight	11	3
477(4)	Improper parking	109	231
494(2)	Prohibited use of studded tire	52	85
	Others	1,752	2,879
	TOTAL	**5,208**	**6,211**

CONVICTIONS REGISTERED UNDER THE CRIMINAL CODE (CANADA)

SECTION	OFFENCES	1983	1984
203	Criminal negligence causing death	15	19
204	Criminal negligence causing bodily harm	10	13
233(1)	Criminal negligence	145	163
233(2)	Fail to remain	1,466	1,367
233(4)	Dangerous driving	1,326	1,191
234	Drive ability impaired	19,321	19,497
234.1	Roadside	668	743
235(2)	Fail to take breathalizer	3,551	3,229
236	Over .08 alcohol	21,464	22,772
	TOTAL	**47,966**	**48,994**

SUMMARY OF CONVICTIONS

	1983	1984
Criminal Code	47,966	48,994
Highway Traffic Act	1,271,334	1,201,565
Regulation H.T.A.	5,208	6,211
Municipal Bylaws	31,210	31,927
Motor Vehicle Accident Claims Act	0	2
Compulsory Automobile Insurance Act	20,482	27,567
Public Commercial Vehicles Act	600	795
Public Vehicle Act	0	113
Motor Vehicle Transport Act	624	1,040
TOTAL	**1,377,424**	**1,318,214**

CONVICTIONS REGISTERED UNDER THE MOTORIZED SNOW VEHICLES ACT

SECTION	OFFENCES	1983	1984
2(1)	Driver or permit to drive unregistered vehicle	220	224
2(2)	Fail to register vehicle	0	0
2(3)	Fail to provide evidence of issue of permit (no plate)	3	1
2(7)	Fail to display registration number	129	106
2(8)	Fail to display evidence of permit	376	298
3(1)	Make false statement	0	1
3(2)	Fail to notify change of address	0	0
3(3)	Fail to notify change of ownership	14	14
4	Plate — registration number obstructed	3	0
4(2)(a)(b)	Use defaced or altered plates	0	0
4(2)(c)	Improper plates	0	0
5	Drive on prohibited highway	65	58
6(2)	Drive in area not designated	0	0
7	Improper crossing of highway	5	6
8(1)(2)	No operators licence driving along/across highway	102	118
11(1)	Operate/permit operation uninsured vehicle	197	173
11(2)	No insurance	13	0
11(3)	Fail to produce evidence of insurance	38	35
11(4)	Produce false evidence of insurance	2	2
12(1)	Fail to report collision	13	18
12(2)	Police officer fail to forward report of accident	0	2
13(1)	Speeding	29	24
14	Careless driving	39	41
15(1)	Fail to produce licence	65	36
16	Remove device	3	0
16(1)	Improper muffler	1	2
17	Towing on serviced roadway prohibited	8	1
18	No helmet	215	215
25(3)	Disobey signs on highway or public trail	11	9
	Others	8	18
	TOTAL	**1,559**	**1,411**

REGULATIONS (MOTORIZED SNOW VEHICLES ACT)

SECTION	OFFENCES	1983	1984
2	Disobey police officer	5	4
3	Fail to yield to vehicle on right	1	0
4	Disobey sign	5	10
5(1)(b)	Fail to yield — from adjoining property	1	3
5(2)	Improper crossing of roadway	0	1
6(3)	Improper left turn	1	0
7(1)	Fail to signal	0	1
7(2)	Fail to signal from stop position	0	1
7(3)	Improper signal	0	0
7(4)	Fail to signal stop	0	0
8(a)	U-turn no clear view	0	0
9	Disobey traffic signal light	0	0

REGULATIONS (MOTORIZED SNOW VEHICLES ACT)

10(1)	Fail to share roadway	1	6
10(2)(b)	Passing when roadway not clear	0	0
11	Drive left of centre	1	0
12	Pass on right — not in safety	1	1
13	Following too closely	1	3
14(1)	Fail to stop at railway crossing	0	0
14(2)	Cross railway improperly	0	0
15(1)(a)	Park on roadway	0	1
16	Speeding	0	2
17	Improper or no lights	17	17
19(a)	Drive on King's Highway (prohibited)	0	0
	Others	24	2
	TOTAL	**58**	**52**

CRIMINAL CODE OF CANADA (MOTORIZED SNOW VEHICLES)

SECTION	OFFENCES	1983	1984
233(2)	Fail to remain	0	0
233(4)	Dangerous driving	0	0
234	Impaired driving	5	6
235(2)	Fail to take breathalizer	0	0
236	Over .08 alcohol	9	10
	TOTAL	**14**	**16**

MUNICIPAL BYLAWS (MOTORIZED SNOW VEHICLES)

SUMMARY OF CONVICTIONS (MOTORIZED SNOW VEHICLES)

Motorized Snow Vehicles Act	1,559	1,411
Criminal Code of Canada	14	16
Regulations	58	52
Bylaws	0	10
TOTAL	**1,631**	**1,505**

SUSPENSIONS

COURT ORDERED SUSPENSIONS H.T.A.	1983	1984
Careless driving	331	275
Speeding over 30 mph (50 kmh)	207	149
Racing	6	8
Fail to remain	91	115
Others	455	415
TOTAL	**1,090**	**962**

MANDATORY SUSPENSIONS H.T.A.

Driver while licence is suspended (Section 35)	12,602	12,415
Others	0	0
TOTAL	**12,602**	**12,415**

DEMERIT POINT SYSTEM SUSPENSIONS

6 & 15 demerit point accumulation	19,565	19,748
Fail to attend interview	916	1,072
As a result of interview	1,551	1,009
TOTAL	**22,032**	**21,829**

DISCRETIONARY SUSPENSIONS (H.T.A. – SECTION 30)

Medical or physical condition	1,035	1,183
Fail to file medical report	2,360	2,521
TOTAL	**3,395**	**3,704**

SUSPENSIONS

SUSPENSION FOR:		
Motor Vehicle Accident Claims	4,316	3,569
Failure to pay judgment	1,384	1,320
Default in payment of traffic fine	63,657	55,649
TOTAL	**69,357**	**60,538**

MANDATORY SUSPENSION H.T.A. FOR CRIMINAL CODE OFFENCES		
Criminal negligence	154	182
Dangerous driving	1,198	1,107
Impaired	18,816	18,930
Failure to provide breath sample	3,408	3,085
Blood/alcohol .08	20,832	21,976
Fail to remain at scene	1,385	1,297
Fail to provide (RDSI)	627	691
TOTAL	**46,420**	**47,278**
TOTAL OF ALL SUSPENSIONS	**154,896**	**146,726**

DEMERIT POINT SYSTEM	1983	1984
DRIVER IMPROVEMENT ACTIONS		
Advisory letters issued (Probationary)	44,238	41,408
(Non Probationary)	125,390	108,205
Interviews conducted	29,635	28,104
SUSPENSIONS		
Drivers who reached suspension level through point accumulation (15 points)	5,917	4,205
Drivers who reached suspension level through point accumulation (6 points)	13,078	15,003
Drivers who reached suspension level through point accumulation (Second 15 point accumulation)	570	540
Drivers suspended for failure to attend interview	916	1,072
Drivers suspended as a result of unsatisfactory interview	1,551	1,006
Total suspensions under point system	22,032	21,826
DRIVER MEDICAL REVIEW		
Total Cases Reviewed	85,813	104,238
Satisfactory	84,175	102,558
Unsatisfactory reports as to class	479	573
Totally unsatisfactory	1,159	1,107
New Medical Waiver Program (Effective March 1981)		
Waivers granted	221	235
Waivers denied	16	15
DRIVER OPTOMETRICAL REVIEW HIGHWAY TRAFFIC ACT		
Total Cases Reviewed	8,463	8,531
Satisfactory vision reports filed	4,550	6,022
Drivers to wear prescribed lenses while driving — no previous restriction	3,538	2,224
Unsatisfactory vision reports	385	285

Driver Improvement Statistics – 1984 Summary Sheet

	1982	1983	1984
NUMBER OF LICENSED DRIVERS IN ONTARIO	5,247,177	5,380,259	5,513,911
CONVICTIONS RECORDED IN RESPECT TO THE OPERATION OF:			
Motor Vehicles	1,416,084	1,377,424	1,318,214
Motorized Snow Vehicles	2,165	1,631	1,505
TOTAL	**1,418,249**	**1,379,055**	**1,319,719**
TOTAL DRIVER LICENCE SUSPENSIONS APPLIED	**155,096**	**154,896**	**146,726**
MEDICAL AND OPTOMETRICAL REVIEWS CONDUCTED	**92,606**	**94,276**	**112,769**

Trends in Motor Vehicle Accidents

Death and Injury Rates Over the Period 1975-1984

Between 1975 and the end of 1984, Ontario's population and the number of licensed drivers, motor vehicle registrations and motor vehicle accidents (with the exception of the years 1976, 1978, 1980, 1982 and 1983) were all on the rise. During the past ten years, traffic deaths reached a high of 1,800 in 1975 and declined to a low of 1,132 in 1984 which is the lowest annual fatality total since the year 1958 when 1,112 persons were killed.

In the past year, the number of deaths decreased 6.0% from 1,204 deaths in 1983 to 1,132 deaths in 1984. The estimated population grew from 8.82 million to 9.02 million. The death rate per 100,000 population decreased to 12.5 from 13.7 last year. The death rate over the past ten years ranges from 21.9 to 12.5. The 1984 death rate of 12.5 is the lowest since the year 1944 at which time the population was 3.96 million and the death rate was 12.6 per 100,000 population.

There was an increase in the number of persons injured, from 91,706 in 1983 to 97,230 this year. The 1984 injury rate per 100,000 population increased to 1077.5 from 1040.2 in 1983.

Last year, the number of motor vehicle accidents reported totalled 194,782 an increase of 7.0% against the 1983 total of 181,999. There were decreases of 3.0% in fatal accidents and 6.0% in persons killed. The personal injury accidents and persons injured increased 5.4% and 6.0% respectively.

The motor vehicle accident rate per one million kilometres travelled this year increased to 2.9 from 2.8 last year and the fatal accident rate per 100 million kilometres travelled decreased from 1.6 to 1.5. The death rate per 100 million kilometres travelled decreased from 1.84 in 1983 to 1.70 this year. The 1984 death rate of 1.70 is the lowest since 1955.

The number of kilometres driven in 1984 was estimated at 66,722,565,000 an increase of 2.1% from the 1983 figure of 65,358,842,000.

MINISTRY EXPENDITURE BY HIGHWAY

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		$	$
2	Lancaster-Windsor	1,500,432	4,801,896
3	Fort Erie—Windsor	3,241,867	2,642,001
4	Port Stanley—Hwy. 24	1,664,002	1,582,539
5	Toronto—Paris	82,296	864,555
6	Hwy. 24—Baldwin Twp.—Hwy. 17	2,790,027	3,476,570
7	Hwy. 417 & Hwy. 17 IC—40 IC (Sarnia)	14,346,563	5,958,941
7A	Hwy. 7 Scotts Corner—Hwy. 7/12 (Manchester)	297,948	349,084
7B	Peterborough—Fowler's Corners	784	102,161
8	Grimsby—Goderich	1,401,198	894,983
9	Hwy. 11—Hwy. 21	2,490,834	1,286,759
10	Mississauga—Owen Sound	2,143,067	1,680,815
11	Toronto—Rainy River	20,455,057	11,463,001
11B	(North Bay By-Pass)	1,644,550	97,718
12	Whitby—Hwy. 93	2,383,601	1,094,771
14	Hwy. 62—Marmora	23,225	410,740
15	Barriefield—Old Hwy. 17	39,897	1,048,306
16	Johnstown—Ottawa	3,071,824	561,371
17	Hwy. 417—Manitoba Boundary	14,067,073	12,199,219
17B	At North Bay	—	6,647
18	Leamington—Windsor	827,055	361,543
19	Port Burwell—Tralee	29,613	768,573
20	Niagara Falls—Hamilton	309,399	514,905
21	Hwy. 3 (Morpeth)—Owen Sound	504,853	1,624,076
22	London—Hwy.7 & 79	—	305,833
23	Hwy. 7—Hwy. 9 Teviotdale	25,429	602,825
24	Hwy. 59—Collingwood	6,701	1,581,577
24A	Paris—Waterloo Cty. Bdy.	—	72,054
25	Oakville—Hwy. 89	101,247	798,346
26	Barrie—Owen Sound	9,378	731,910
27	Hwy. 401-Hwy. 93	1,477,105	955,222
28	Port Hope—Hwy. 41	181,044	1,108,081
29	Brockville—Smiths Falls	53,439	243,878
30	Brighton—Havelock	1,517,867	328,240
31	Morrisburg—Ottawa	2,679	496,184
32	Gananoque—Hwy. 15	—	110,583
33	Kingston—Stirling	196,605	714,817
34	Hwy. 2 (Lancaster)—Hawkesbury	4,255	512,828
35	Hwy. 401 (Newcastle)—Hwy. 60	5,429,131	1,189,355
35A	Fenelon Falls—Hwy. 35	182	21,004
36	Lindsay—Burleigh Falls	17,946	429,926
37	Belleville—Hwy. 7	943,442	234,331
38	Hwy. 2—Hwy. 7	—	392,187
40	Blenheim—Sarnia	60,675	540,175
41	Napanee—Pembroke	146,826	1,145,617
42	Hwy. 29—Westport	—	288,772
43	Alexandria—Perth	7,325	1,028,324
44	Hwy. 17—Hwy. 15 (Almonte)	1,546	83,543
45	Cobourg—Norwood	4,438	399,754
46	Hwy. 7—Hwy. 48	1,450	168,032
47	Whitchurch/Stouffville—Hwys. 7/12	47,432	378,821
48	Toronto—Hwy. 35	979,099	1,166,898
49	Picton-Hwy. 401	—	127,264
50	Toronto—Hwy. 89	501,266	460,747
51	Rondeau Prov. Park—Jct. Hwy. 3	—	35,916
52	Jct. Hwy. 2/53—Wellington Bdry.	234,409	195,836
53	Elfrida—Eastwood	17,216	575,348
54	Cayuga—Cainsville	26,327	458,205
55	Niagara-on-the-Lk.—Mary St.—Niagara Rd. 81 (Homer)	5,022,170	192,399
56	Jct. Hwy. 3—Elfrida (Hwy. 3 & 28)	—	254,718

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		$	$
58	Port Colborne—St. Catharines	558,132	271,966
58A	Port Colborne (Hwy. 58)—Hwy. 140	364	87,893
59	Long Point—Shakespeare (Hwy. 7 & 8)	1,100,341	728,057
60	Hwy. 17 (Renfrew)—Huntsville	142,055	1,393,441
61	International Bdry.—Thunder Bay	85,035	256,040
62	Bloomfield—Pembroke	479,123	1,374,337
63	North Bay—Quebec Border	515,741	372,376
64	Hwy. 69—Hwy. 11	63,329	867,601
65	Quebec Border—Hwy. 66	18,424	558,334
66	Quebec Border—Sec. Hwy. 566	39,200	437,906
67	Iroquois Falls—Timmins	4,869	202,958
69	Hwy. 12—(Sudbury By-pass)	3,099,399	1,851,276
69B	Parry Sound By-pass	2,606	6,353
70	Hwy. 6/21—Hepworth	9,580	88,900
71	Fort Frances—Hwy. 17	1,443	583,958
72	Hwy. 17 (Dinorwic)—Sioux Lookout	10,252	265,276
73	Port Bruce—Middlesex Rds. 29 & 48	—	260,377
74	Hwy. 3 (New Sarum By-pass)—Nilestown	—	149,563
76	Hwy. 3 (Eagle)—Hwy. 2	—	112,922
77	Leamington—Hwy. 401	14,652	123,259
78	Hwy. 21 (Dresden)—Wallaceburg	—	76,923
79	Hwy. 2—Hwy. 21	2,381	293,239
80	Hwy. 2—Courtright	—	373,887
81	Hwy. 2—Grand Bend	5,417	417,653
83	Hwy. 23 (Russeldale)—Hwy. 21	—	251,069
84	Hensall—St. Joseph	1,113	105,476
86	Kitchener—Amberly	192,729	742,861
87	Harriston—Hwy. 86 (Bluevale)	—	205,128
88	Bradford—Hwy. 27 (Bond Head)	22,831	62,848
89	Hwy. 11—Hwy. 23	115,897	820,510
90	Barrie—Angus	104,926	140,134
91	Stayner—Duntroon	—	41,729
92	Elmvale—Wasaga Beach	—	72,241
93	Hwy. 11—Penetanguishene	7,833	431,480
94	Callander By-pass—Hwy. 17	1,450,670	61,801
95	Alexandria Point—Wolfe Island	—	62,883
96	Port Metcalf—W. end of Wolfe Is.	28,676	235,803
97	Hwy. 6 (Freelton)—Hickson	72,817	40,703
99	Ancaster—Hwys. 24 & 5	—	111,708
100	Jct. Hwy. 401 to Thames R.Br.	36,946	26,495
101	Quebec Border—Hwy. 17	2,594,193	2,129,232
102	Thunder Bay—Sistonens Corners	—	180,481
105	Hwy. 17—Sec. Hwy. 618	2,642,241	671,093
106	Hwy. 28 (Dale)—Hwy. 2 (Welcome)	242	33,235
108	Hwy. 17—Sec. Hwy. 639 (Quirke Lake)	38,424	229,500
112	Hwy. 11—Hwy. 66 (Kirkland Lake)	27,963	85,446
115	Newcastle—Peterborough	318,995	527,101
117	Jct. Hwy. 11—Jct. 35	5,163	239,910
118	Hwy. 121—Hwy. 169	12,820	609,563
121	Hwy. 28—Hwy. 35 (Powles Cors.)	259,812	809,905
124	Hwy. 69—Hwy. 11	6,171	421,285
125	Hwy. 105—Cochenour Dock	26,135	51,077
126	Middlesex Rd. 37—Middlesex Rd. 23	—	78,126
127	Maynooth—Hwy. 60	—	191,779
129	Thessalon—Chapleau	13,565	1,085,423
130	Hwy. 11/17—Hwy. 61	1,013,714	57,794
132	Renfrew-Hwy. 41	9,859	141,967
133	Hwy. 33 (Millhaven)—Hwy. 401	10,339	57,584
134	Jct. Hwy. 7—Jct. Hwy. 28	871	104,565
135	Middlesex Road 37—Hwy. 2/4	60,933	45,401
136	Hwy. 24—Orangeville	—	209,385
137	Hwy. 401—Canada US Border	—	37,606

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		$	$
138	Hwy. 417—Cornwall	116	231,637
140	Hwy. 3 (Port Colborne)—Welland	9,824	190,098
141	Hwy. 69—Jct. Hwy. 11	16,114	275,273
144	Sudbury—Hwy. 101	2,574,275	1,441,747
169	Hwy. 12 to Hwy. 69 (to Footes Bay)	347,064	275,022
400	Toronto—Hwy. 12 & Hwy. 69	3,264,843	3,533,803
401	(MCF) Quebec Border—Windsor	24,655,011	19,080,198
402	Hwy. 401—Sarnia	459,122	1,216,179
403	Hwy. 401/410—Brant Rd. 25 IC	14,291,556	1,706,305
404	Hwy. 401 & Don Valley Pkwy.—Bloomington Rd.	3,441,701	429,273
405	QEW—International Br. (Queenston)	—	197,256
406	Welland—QEW	8,578,630	344,542
407	Jct. Hwy. to Jct. Hwy. 35 & 115 (Proposed)	1,258,043	—
409	Hwy. 401—Airport Road	104,074	458,992
410	Hwy. 401 & 403—Brampton	7,052,981	202,538
416	Jct. Hwy. 2—Johnstown to Ottawa (Proposed)	47,873	—
417	Quebec Boundary—Hwy. 7 & W. Jct. Hwy. 17	10,097,404	2,708,326
420	Niagara Rd. 106—Rainbow Bridge (Niagara Falls)	35,387	112,249
427	Etobicoke—Coules Ct.—Indian Line	12,429,677	1,312,453
QEW	Toronto—Fort Erie	41,162,107	6,748,748
	TOTAL KING'S HIGHWAYS	**235,385,817**	**135,150,185**

SECONDARY HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		$	$
502	Hwy. 11—Sec. Hwy. 594	1,570,925	635,855
503	Tory Hill—Kirkfield	27,240	755,992
504	Sec. Hwy. 620—Hwy. 28	133,296	236,033
505	Hwy. 48—Uphill (Sec. Hwy. 503)	276,775	126,025
506	Plevna—Hwy. 41	187,685	169,863
507	Hwy. 28—Sec. Hwy. 503 (Gooderham)	2,296,755	445,581
508	Calabogie (Sec. Hwy. 511)—Hwy. 17	—	153,792
509	Hwy. 7—Plevna (Sec. Hwy. 506)	9,259	275,435
510	Magnetawan—Hwy. 124	—	15,016
511	Hwy. 7—Sec. Hwy. 508	628,028	406,313
512	Eganville (Hwy. 41)—Hwys. 60/62	79,667	235,615
513	Hwy. 132—Adamston Twp. Bdry.	—	160,335
514	Hwy. 28—Sec. Hwy. 515	—	66,749
515	Sec. Hwy. 512—Hwy. 62	286,698	299,317
516	Sec. Hwy. 599—Sec. Hwy. 642	77,367	404,079
517	Hwy. 62—Fort Stewart Rd.—Carlow Twp.	—	152,370
518	Sand Lake—Hwy. 69	552,074	488,675
520	Hwy. 11—Ardbeg	100	291,101
522	Hwy. 11—Hwy. 69	99,799	639,485
523	Nipissing Dist. Bdry.—Hwy. 60	517,879	100,123
524	Sec. Hwy. 522—Sec. Hwy. 534	104,139	43,921
525	Sec. Hwy. 596—White Dog I.R.	7,154	113,536
526	Hwy. 69—Britt	—	122,863
527	Hwy. 11/17—Armstrong	2,062,896	1,510,556
528	Wolseley Bay—Hwy. 64	—	127,579
528A	Pine Cove—Sec. Hwy. 528	—	37,193
529	S. Jct. Hwy. 69—N. Jct. Hwy. 69	—	130,569
529A	Sec. Hwy. 529—Bayfield Lodge	98,834	65,285
531	Bonfield—Hwy. 17	9,058	22,142
532	Sec. Hwy. 556—Christina Mine Road	317,085	76,758
533	Mattawa—Hwy. 63	569,416	411,997
534	Powassan—Restoule Prov. Park	174,339	302,029

SECONDARY HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		$	$
535	Hwy. 64—Riviere Veuve	2,708,395	330,228
537	Hwy. 69—Hwy. 17 (Nickle Centre)	4,447	168,633
538	E. Jct. Hwy. 17—W. Jct. Hwy. 17	—	42,056
539	Hwy. 64 (Field)—Hwy. 17 (Warren)	187,509	281,863
539A	Sec. Hwy. 539—Tert. Road 805	—	38,632
540	Little Current—Meldrum Bay	277,837	899,573
540A	Sec. Hwy. 540—Barrie Island Rd. L5-6	3,471	79,925
540B	E. Jct. Sec. Hwy. 540/542—W. Jct. Sec. Hwy. 540	—	42,058
542	Hwy. 6—Sec. Hwy. 540/540B (to Gore Bay)	785,232	456,212
542A	Hwy. 542—Tehkummah Twp. Rd. L10-11	—	65,285
546	Hwy. 17—Mount Lake	26,552	398,130
547	Hwy. 101—Hawk Jct.	—	31,992
548	Hwy. 17—Sec. Hwy. 548 (From N.)	157,572	443,412
550	Sault Ste. Marie—Gross Cap	—	47,082
551	Province Bay—Sec. Hwy. 540	1,370	130,570
552	Sec. Hwy. 556—Fenwick Twp.—End of Hwy.	20,527	94,479
553	Massey—Tert. Rd. 810	62,352	174,756
554	Sec. Hwy. 546-Hwy. 129	788,304	89,453
555	Magog Lake Landing—Hwy. 557	29,027	66,569
556	Hwy. 17—Hwy. 129	698,902	695,996
557	Blind River—Matinenda Lake	387,989	135,655
558	Haileybury—Montreal River Br.	1,869,083	111,996
559	Hwy. 69—Kilbear Prov. Park	—	107,545
560	Hwy. 11—Hwy. 144	203,712	1,029,106
560A	Sec. Hwy. 560—(Westree)	—	42,100
561	Bruce Mines—Sec. Hwy. 638	4,153	135,922
517	Hwy. 62—Fort Stewart Rd.—Carlow Twp.	—	152,370
518	Sand Lake—Hwy. 69	552,074	488,675
520	Hwy. 11—Ardbeg	100	291,101
522	Hwy. 11—Hwy. 69	99,799	639,485
523	Nipissing Dist. Bdry.—Hwy. 60	517,879	100,123
524	Sec. Hwy 522—Sec. Hwy. 534	104,139	43,921
525	Sec. Hwy. 596—White Dog I.R.	7,154	113,536
526	Hwy. 69—Britt	—	122,863
527	Hwy. 11/17—Armstrong	2,062,896	1,510,556
523	Wolseley Bay—Hwy. 64	—	127,579
523A	Pine Cove—Sec. Hwy. 528	—	37,193
529	S. Jct. Hwy. 69—N. Jct. Hwy. 69	—	130,569
529A	Sec. Hwy. 529—Bayfield Lodge	98,834	65,285
531	Bonfield—Hwy. 17	9,058	22,142
532	Sec. Hwy. 556—Christina Mine Road	317,085	76,758
533	Mattawa—Hwy. 63	569,416	411,997
534	Powassan—Restoule Prov. Park	174,339	302,029
535	Hwy. 64—Riviere Veuve	2,708,395	330,228
537	Hwy. 69—Hwy. 17 (Nickle Centre)	4,447	168,633
538	E. Jct. Hwy. 17—W. Jct. Hwy. 17	—	42,056
539	Hwy. 64 (Field)—Hwy. 17 (Warren)	187,509	281,863
539A	Sec. Hwy. 539—Tert. Road 805	—	38,632
540	Little Current—Meldrum Bay	277,837	899,573
540A	Sec. Hwy. 540—Barrie Island Rd. L5-6	3,471	79,925
540B	E. Jct. Sec. Hwy. 540/542—W. Jct. Sec. Hwy. 540	—	42,058
542	Hwy. 6—Sec. Hwy. 540/540B (to Gore Bay)	785,232	456,212
542A	Hwy. 542—Tehkummah Twp. Rd. L10-11	—	65,285
546	Hwy. 17—Mount Lake	26,552	398,130
547	Hwy. 101—Hawk Jct.	—	31,992
548	Hwy. 17—Sec. Hwy. 548 (From N.)	157,572	443,412
550	Sault Ste. Marie—Gross Cap	—	47,082
551	Province Bay—Sec. Hwy. 540	1,370	130,570
552	Sec. Hwy. 556—Fenwick Twp.—End of Hwy.	20,527	94,479
553	Massey—Tert. Rd. 810	62,352	174,756
554	Sec. Hwy. 546—Hwy. 129	788,304	89,453
555	Magog Lake Landing—Hwy. 557	29,027	66,569
556	Hwy. 17—Hwy. 129	698,902	695,996
557	Blind River—Matinenda Lake	387,989	135,655
558	Haileybury—Montreal River Br.	1,869,083	111,996
559	Hwy. 69—Kilbear Prov. Park	—	107,545

SECONDARY HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		$	$
560	Hwy. 11—Hwy. 144	203,712	1,029,106
560A	Sec. Hwy. 560—(Westree)	—	42,100
561	Bruce Mines—Sec. Hwy. 638	4,153	135,922
562	Hwy. 11—Hwy. 65	411,358	49,781
563	Hwy. 17—Batchawana Bay—Govt't Dock	153	26,749
564	Hwy. 112—Pacaud Twp. C6—End of Assumed Hwy.	—	42,082
565	Sec. Hwy. 550—Sault Ste. Marie (Airport Ent.)	—	7,599
566	Matachewan—Ashley Mine	—	104,486
567	Haileybury—Lower Notch Dam—End of Hwy.	200	140,215
568	Hwy. 11—Kenogami	—	10,260
569	S. Jct. Hwy. 11—N. Jct. Hwy. 11	203,357	124,337
570	Hwy. 11—Maisonville Twp.	—	53,576
571	Sec. Hwy. 562—Hwy. 11 (Earlton Bypass)	64,331	24,551
572	Hwy. 11—Hwy. 101	—	176,297
573	Charlton—Hwy. 11	11,941	84,871
574	Sec. Hwy. 652—Norembega	—	70,644
575	Jct. Hwy. 17—Jct. Hwy. 64	68,055	140,045
576	Hwy. 101—Kam-Kotia Mine Ent—End of Hwy.	—	98,915
577	Hwy. 101—Iroquois Falls (Hwy. 67)	—	279,387
578	Iroquois Falls—Hwy. 11 (Nellie Lake)	—	36,726
579	Sec. Hwy. 574—Gardiner	—	148,437
580	Hwy. 11—Poplar Lodge Prk Ent—Eva Twp.	—	53,123
581	Hwy. 11—Remi Lake Prov. Park	—	45,202
582	N. Jct. Hwys. 11/17—S. Jct. Hwys. 11/17	575,723	27,418
583	Mead—Lac Ste. Therese	1,876,835	211,696
584	Hard Rock Mine—Nakina—End of Hwy.	60,482	307,171
585	Hwy. 11/17—Pine Portage—End of Hwy. (Sign)	199,591	157,449
586	Hwy. 11—End of Hwy. (Sign)	—	22,706
587	Hwy. 11/17—Hwy. Ends (Sign)	21,882	180,989
588	Hwy. 11/17—Hwy. Ends (Sign)	48,423	295,598
589	Hwy. 102—End of Hwy. (Sign)	—	137,357
590	Hwy. 11/17—Sec. Hwy. 588	2,367,218	118,103
591	Sec. Hwy. 589—Ware Twp.—End of Hwy.	—	35,129
592	Hwy. 11 (Novak)—N. Jct. Hwy. 11	—	88,945
593	Hwy. 61—Sec. Hwy. 588	359,069	520,780
594	Dryden—W. Jct. Hwy. 17	55,105	136,246
595	Sec. Hwy. 597—Sec. Hwy. 590	142,562	217,242
596	Hwy. 17 (Keewatin)—MTC Hwy. Ends (Sign)	307,433	192,447
597	Cloud Lake Rd.—Sec. Hwy. 608	—	74,322
598	Sec. Hwy. 604—Sec. Hwy. 666	—	16,088
599	Hwy. 17—Central Patricia	271,043	1,535,991
600	E. Jct. Hwy. 71—Hwy. 11	242,115	373,098
601	Dryden—E. Jct. Hwy. 17	1,813	98,969
602	Fort Frances—Emo	614	174,553
603	Hwy. 17—Dyment	—	15,893
604	Hwy. 17—Kenora Airport	—	32,480
605	Hwy. 17—Rugby Lake—End of Hwy.	273,667	44,752
607	Hwy. 69—Hwy. 64	7,492	79,055
607A	Bigwood—Schell's Camp	—	15,055
608	Hwy. 61—Sec. Hwy. 595	55,500	157,669
609	Hwy. 105—Clay Lake—End of Hwy.	—	61,957
610	Hwy. 67—Hwy. 101	2,094	98,532
611	Sec. Hwy. 602—Lake Wasaw Rd.—End of Hwy.	—	84,776
612	Muskoka Reg.—Hwy. 69	—	23,102
613	Sec. Hwy. 602—Lake Despair—End of Hwy.	—	149,205
614	Hwy. 17—Caramat Rd.—End of Hwy.	—	265,335
615	Hwy. 71—Burditt Lake	—	132,617
616	Hwy. 101—Palomar—C.N.R. Crossing	—	14,514
617	Hwy. 11 (Stratton)—Sec. Hwy. 600	249,667	100,586
618	Red Lake—Olsen Mine Rd.	1,455	44,803
619	Hwy. 11 (Pinewood)—Sec. Hwy. 621	—	182,251
620	Hwy. 62—Hwy. 28	5,711	202,242
620A	Sec. Hwy. 504—Sec. Hwy. 620	—	2,493
621	Hwy. 11—End of Hwy.	250,861	201,582
622	Hwy. 11B (Atikokan)—Bending Lake Rd.	—	75,829

SECONDARY HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		$	$
623	Hwy. 11—Bush Rd.	—	21,421
624	Hwy. 11—Hwy. 66	—	171,100
625	Caramat—Hwy. 11	—	128,095
626	Hwy. 17—Marathon	—	18,219
627	Hwy. 17—NW Lts Pukaskwa National Park	1,072	59,940
628	Red Rock—Hwy. 11/17	638,693	35,129
629	Timmins—Timmins Airport	—	38,789
630	Kiosk—Hwy. 17	—	201,027
631	Hwy. 17—Hwy. 11	2,207,360	868,151
632	Muskoka Reg.—Hwy. 141	750	61,980
633	Hwy. 11—End of Hwy.	—	25,704
634	Smooth Rock Falls—Abitibi Canyon Dam	142,000	353,200
635	Hwy. 17—Des Joachims Br (S. End)	—	15,797
636	Hwy. 11—Clute Twp. Rd. C4-5—End of Hwy.	—	21,473
637	Hwy. 69—Killarney	1,589,812	388,796
638	Bailey Br.—Hwy. 17	74,384	219,129
639	Hwy. 108—Sec. Hwy. 546	—	130,570
640	Sec. Hwy. 571—Earlton Airport Entrance	—	66,079
641	Hwy. 17—Sec. Hwy. 596	—	88,963
642	Sec. Hwy. 599—Wellington St.-Hwy. 72	7,154	286,081
643	Sec. Hwy. 584—Cavell Rd.	—	82,683
644	Hwy. 69 (Pte. Au Baril)—Pointe Au Baril—School End of Hwy.	—	65,285
645	Sec. Hwy. 529—Byng Inlet	—	65,285
647	Hwy. 17—Blue Lake Prov. Park—Store	—	29,724
648	Dyno Mines Ent.—West Jct. Hwy. 121 (End of Loop)	1,874	207,203
649	Bobcaygeon—Hwy. 121	1,004	116,273
650	Dane—Hwy. 112—Adams Mine—ONR Crossing	20,538	41,335
651	Hwy. 101—Missanabie—CPR Crossing	155,938	271,746
652	Cochrane—Kattawagami R. Br.	1,229,733	840,354
653	Chenaux—Hwy. 17	—	58,367
654	Sec. Hwy. 534—Hwy. 11	31,845	146,096
655	Timmins—Hwy. 11	107	385,045
656	Sec. Hwy. 533—Holden Generating Sta. Ent.	—	26,894
657	Hwy. 105—Goldpines	—	21,324
659	Sec. Hwy. 604—Sec. Hwy. 666	405,614	84,745
661	Hwy. 144—Gogama	—	22,052
663	Hwy. 11—Calstock—C.N.R. Crossing	97,424	22,811
664	Hwy. 72—End of Hwy.	—	62,849
665	Hwy. 17—Richan—C.N.R. Sta.	—	138,704
666	Kenora—Redditt (C.N.R. Sta.)	284,708	116,750
667	Hwy. 129—Sultan	—	174,630
668	Hwy. 11—Green Water Prov. Pk. Ent.	179,224	60,860
	TOTAL SECONDARY HIGHWAYS	**33,507,886**	**30,026,376**
	TERTIARY ROADS		
801	Hwy. 11—Namewaminikan R. Br (Sturgeon R. Br)	—	60,896
802	Kashabowie—End of Hwy.—Burchell Lk. Rd.	—	63,341
803	Timmins—Hwy. 101—Forks (End of Hwy.)	—	15,583
804	Hwy. 105 (Lower Manitou Falls Dam)	—	33,932
805	Sec. Hwy. 539A (River Valley)—Pond Lake (End of Hwy.)	—	128,557
807	Sec. Hwy. 622—End of Const.	1,990,147	20,512
809	Sec. Hwy. 564—Misema River	—	16,869
810	Sec. Hwy. 553—Richie Falls	—	306,664
811	Sec. Hwy. 527—Weaver R. Br. (Temp. Br.)	—	330,652
	TOTAL TERTIARY ROADS	**1,990,147**	**977,006**

SECONDARY HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		$	$
	ACCESS, INDUSTRIAL & ARTERIAL ROADS		
709	Anaconda Road	—	15,311
714	Quimet Canyon Road	968,637	—
751	Arterial Rd.—Jane St. S'ly to S. Queens Dr.	336	—
771	Kodak Access Road	22,310	—
773	Garden Lake Road	—	102,812
784	Lac Seul I.R. Access Rd.	298,752	—
785	Bending Lake Access Road	25,202	—
788	Moosonee Rd. S'ly	—	9,011
792	Hwy. 17—Dubreauilville Townsite	—	83,687
795	Sherman Mine Road	—	2,611
799	Caramat—Manitouwadge Road	—	45,265
	TOTAL ACCESS, INDUSTRIAL & ARTERIAL ROADS	**1,315,237**	**258,697**
	UNINCORPORATED TOWNSHIPS		
2	Indian Reserves	47,833	288,912
7	Special Settlers	351,134	78,306
9	Local Roads Boards	1,301,073	5,747,334
99	Statute Labour Boards	65,724	122,503
	TOTAL UNINCORPORATED TOWNSHIPS	**1,765,764**	**6,237,055**
	SPECIAL PROGRAMS		
450	Other Ferry Services	—	3,231,258
735	Kitchener/Waterloo Expressway	479,060	498,975
797	Airstrip Development	4,711,483	2,664,473
952	Sidewalks	122,379	—
7087	E.C. Row Expressway	1,339,857	439,762
7118	Brantford Expressway	49,839	23,438
7169	Formerly Oxford Cty. Rd. 6	20,224	—
7182	Formerly Sec. Hwy. 559	—	102,230
7189	Proposed Arterial Rd. in the Cities of Hamilton & Burlington	—	14,064
7800	Dubreuilville Rd.	91,581	89,902
7809	Goodie Lake Rd.	194,189	—
8905	Lands & Buildings	1,137,990	3,199,017
8954	Weigh Scales	179,809	327,009
	Development Roads	4,223,532	—
	Connecting Links	15,441,700	2,154,494
	TOTAL SPECIAL PROGRAMS	**27,991,643**	**12,744,622**
	HIGHWAYS TOTALS	**301,956,494**	**185,393,941**
	Sundry Unallocated District Office Administration, Engineering Buildings, Inventory Charges, Recoverables, etc.	(63,090,583)	35,786,002
	TOTAL EXPENDITURE	**238,865,911**	**221,179,943**